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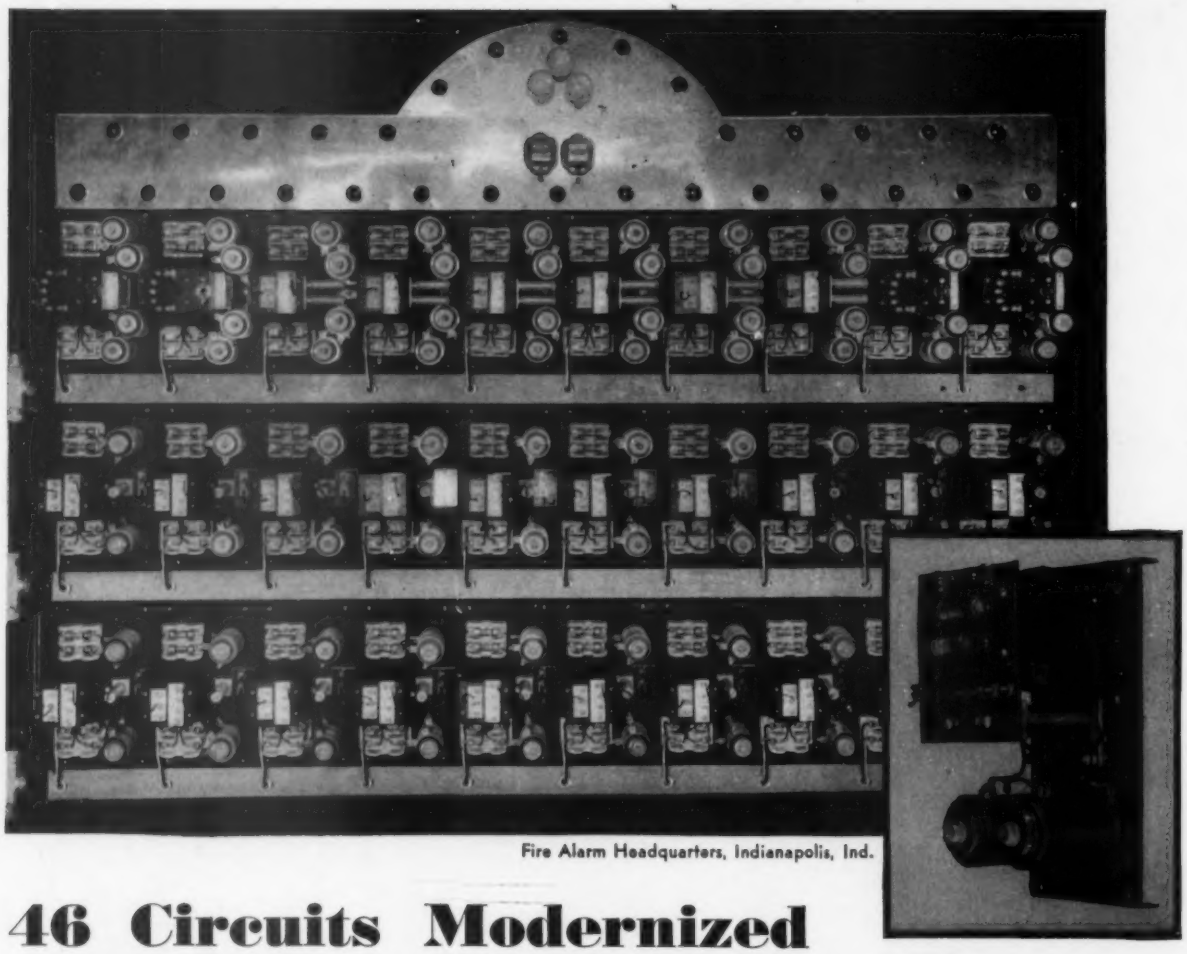
# FIRE ENGINEERING

*The Journal of the Fire Protection Profession Since 1877*

Vol. 86, No. 11 NOVEMBER, 1933 Member A.B.C.—A.B.P.

It's a Tough Job to Fight Brush Fires When Modern Appliances Are Lacking



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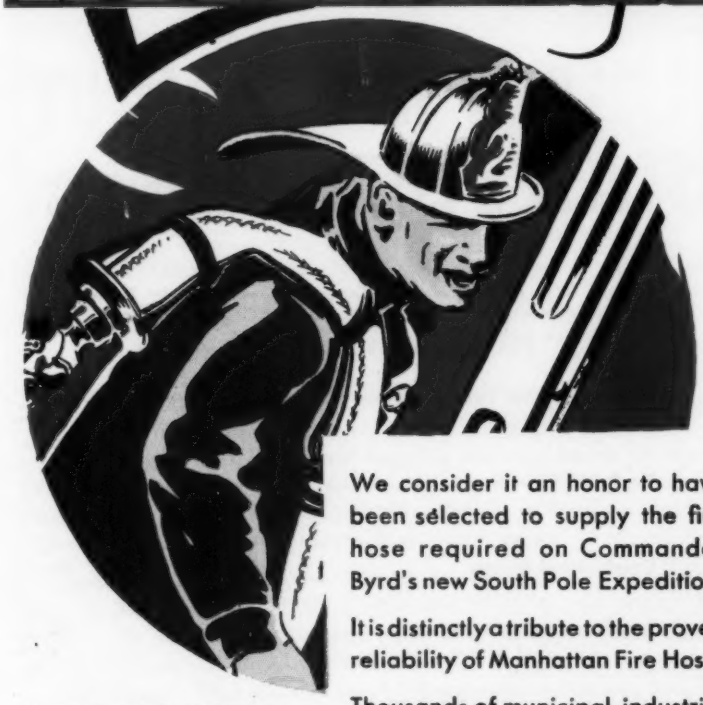

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# FIRE ENGINEERING

*The Journal of the Fire Protection Profession Since* 1877

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## Are You Ready for the Kick-Off?

THE fire equipment business is beginning to show real signs of life, according to reports received from some of the manufacturers.

● One well-known fire hose manufacturer told us a few weeks ago that his factory was working full time again, with enough orders on hand to keep going that way until the end of the year. Another reported substantially the same thing. A manufacturer of nozzles and other fire-fighting appliances says that while "sales for the past year have been extremely slow there has been a considerable pick-up with us during the last few weeks." And so it goes!

● Cities somehow seem to be able to dig up money to buy the things they really need—and what is more necessary than adequate fire-fighting facilities! Perhaps one of the troubles is not so much that cities are not buying as it is that many of the fire equipment manufacturers have virtually stopped advertising and selling.

● It's time to wake up!

The Publishers

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**City fathers like Goodyears for long-wear economy, too. It's a test of endurance to stand still in the firehouse under tons of dead weight, but when did any Goodyear ever ask for a soft snap?**

**There's a Goodyear for every type of apparatus—and Goodyear service never sleeps. See the nearest Goodyear Truck Tire Service Station Dealer. Or write the Government Sales Department, Goodyear, Akron, Ohio, or Los Angeles, Calif.**

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DAVID H. DeCOURCY
CHIEF

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Newton
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On the morning of November 28, 1932 with 700 students in the building an alarm was received at fire headquarters at 8:37 o'clock. Simultaneously the fire alarm system sounded within the school causing the pupils to file out in an orderly fire drill manner. Reaching the scene before all the students had filed out, we found the sprinkler system had frozen during the zero weather the night before causing a pipe to burst in the new auditorium when the heat reached it shortly after the opening of school.

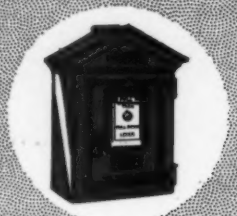
The instant alarm given by your Sprinkler Watchman connection enabled us to reach the school within a minute after the water flow started and to shut off the water before it spread around the auditorium. Only a small loss resulted, but had the water flow continued any longer, there would have been much greater damage.

This incident was a practical demonstration of the value of your Sprinkler Watchman in keeping down water loss. I have repeatedly recommended this protection for public and other buildings.

Yours very truly,

David H. DeCourcy.

Chief of Fire Department



The good judgment of Fire Chief David H. DeCourcy of Winchester, Mass., in hooking up a schoolhouse sprinkler system with his fire department through a Gamewell master type fire alarm box—SPRINKLER WATCHMAN—saved his town thousands of dollars in water damage. And it brought his firemen to the school before the students had all filed out following the alarm. There is no better safeguard to life in sprinklered property than the Gamewell SPRINKLER WATCHMAN.

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# FIRE ENGINEERING

The Journal of the Fire Protection Profession

Volume 86 NOVEMBER, 1933 Number 11

## With the Editor

**Politics Again!** Two years ago the Chief of the Hackensack, N. J., Fire Department was suspended on charges, largely because of a police captain's complaint that the Chief permitted fresh water streams to be operated on a burning pole which carried high tension electric wires, and that contrary to his, the captain's *orders*, the Chief would not desist. The Chief won out in public hearing and was reinstated.

Last month he was dismissed from service and a police captain was placed in direct charge of both fire and police departments. The captain will have the title of Director of Public Safety, and the highest ranking officer under him in the Fire Department will be a captain.

Whether or not the latest move by the municipal authorities at Hackensack is just to even the old score can only be conjectured. But placing a man inexperienced in fire fighting at the head of the fire forces deserves condemnation in the strongest terms. While he may have made an excellent police officer, the new Commissioner will find himself at a tremendous handicap in directing the fire fighters.

Can he command the respect of experienced firemen and officers when he knows little or nothing of fire fighting himself? Will the men under him have faith in his judgment? Can fully effective work be done under these conditions? We think not.

To put a police officer in charge of a Fire Department is very much the same as the government placing the Secretary of Agriculture in charge of the Army. In his own line the Secretary would be good; in his new position he would probably be a detriment rather than an asset.

Leadership, to be successful, requires more than an average knowledge of the work involved. Lack of experience in fire fighting may result in errors of judgment, which would completely destroy the confidence of subordinate officers and men. Lack of confidence on the part of the subordinates can result only in the slowing up of the force at fires and an increase in fire loss thereby.

Civil Service as adopted generally in Fire Departments of the present day is designed to advance those men in the service who are thoroughly trained and qualified in their work. The head of the department secures his advancement through competitive examination with other ranking officers. Thus a Chief must be better qualified than those below him in the service. To pick a man to head the department from among outsiders, as was done in Hackensack, can only result in harm to service. It is a dangerous precedent, and may contribute materially to higher fire losses. Such procedure as followed at Hackensack can only serve to strengthen the argument for Civil Service throughout all ranks. It appears to be the only safeguard against political maneuverers who know little about fire-fighting methods, and care less.

Fred Sheppard

## Need for Careful Study of Science of

# Ventilation in Fire Fighting

By H. E. JURGENSEN,
Minneapolis, Minn.,
Fire Department

VENTILATION, when applied to fire fighting, means opening up a building to allow the heat, smoke and poisonous gases to escape. This then allows the fireman to enter the building safely and reach the seat of the fire. Years ago, firemen thought that to open up a building would spread the fire. This is true, if not done properly. If the building is not ventilated, the hot gases will pack into every corner and explode, thereby spreading the fire.

Ventilation should be made a subject for study in all departments, both large and small. It does not mean that at every fire all the windows should be broken out or the roof and floors chopped up. Some judgment must be used. Before any ventilation is done, extinguishing equipment must be ready. Never open up until you have your hose lines ready to keep down the fire when it shows up.

We will classify the fires to see how much ventilation is needed. The question will be asked, how can we tell what class of fire it is when we arrive and find the building fully charged with smoke? If there is no fire showing, we must size up the building and if there is a lot of smoke, there must be considerable fire. We must make arrangements to have the next larger "class" equipment to back us up, in case the fire turns out to be bigger than we figured.

### Four Classes of Fires

We will put the fires into four classes, figuring the "class" by the amount of equipment needed to handle that fire:

Class 1.—Small fires that can be handled with a pail of water, small extinguisher, or pump can.
Class 2.—One that requires a large chemical line, booster or 1½-inch line.
Class 3.—One that can be handled with 2½-inch lines from the inside.
Class 4.—One that the fire has control of the building and outside lines must be used.

Class 1 fires can generally be ventilated by opening door and windows without doing much damage.

Class 2 and 3 sometimes need a lot of ventilation. When arriving at a house or building and finding them heavily charged with smoke, be careful in opening doors and windows. Protect yourself from a back draft explosion. In opening doors, after the lock has been sprung, stand to one side and push it open. Then wait a minute to see if the smoke clears. If the smoke pours out for a time and then sucks back into the building, look out. You are sure to have a back draft explosion. Back draft explosions are caused by the fire consuming most of the oxygen and forming monoxide gas. This gas, when properly mixed with oxygen, is very explosive, and is ignited by the fire. The oxygen is supplied by the air that is let into the building when you open up.

Class 4 fires need very little ventilation. Most of the time, they are coming out of the roof when we arrive.

### Ventilation for Different Types of Buildings

After this explanation, I will try and show how ventilation should be applied to different types of buildings. This will be a general plan. The buildings must be studied to make a detailed plan for ventilating. This can and should be done after the men have made an inspection of the building.

First, we will take a residence and work out plans for ventilating different fires in it. We must remember the smoke, heat, and gases prevent us from entering the building to the seat of the fire.

### Attic Fires

An attic fire.—First open up all dormer or attic windows. If this does not give relief enough, open up the roof at the highest point, as nearly over the fire as possible. This point can generally be determined by the shingles smoking at that place. In cutting a hole, cut along one rafter for about 3 feet, then skip one and cut on the inside of the next one. This makes cutting easy and repair work simple. After the cutting is done, begin at the top and pull off the boards. The smoke, heat and fire are drawn up through this hole and allow the fireman to get in under it. If this pressure is not relieved, it will drive the fire through the attic and down into the walls. If there is no stairway or scuttle hole to get into the attic, make one. It is better to come up under the smoke than it is to try and get in from the roof or use your line from the roof. Try and remember when you have ventilated this attic, your fire is going where you want it to and not spread any farther. With this in mind, you can get your salvage covers in place, so when you use water, the water will not do any damage except put out the fire.

### Bedroom Fires

A corner bedroom.—Here the windows at the opposite sides should be opened. This causes a cross draft and should draw the smoke out so you can enter.

A middle bedroom.—Open the window, raising lower sash half way and lowering the upper half way. Many times, it is impossible to lower the upper sash, so break out the glass; but, raise the lower one with the glass intact. This allows the heat and smoke to go out the top and the fresh air to rush in through the lower half, and gives an action similar to a suction fan.

### Kitchen and Basement Fires

Kitchen fire.—With this fire, care should be used so that the fire does not spread through the whole house. If it is a two story house and the inside doors are left open, the fire is sure to spread upstairs. A line should be placed to drive the fire back. If the outside door and windows are opened, you generally get enough relief.

Basement fires.—This is always a bad fire to fight, because we have to go down through the heat and smoke

to get at the fire. In-going down the stairs, back down and if there is no air at the bottom, you will be in a good position to make a hurried exit. In a house with a high foundation, the windows on the opposite sides should be opened. This gives you a cross draft and relieves the smoke and pressure. If there are rooms with high walls, of course you will not get a cross ventilation. If this condition is there, you might have to open up the floor above the fire. If the pressure is not relieved, your fire will be driven up the walls and then you will have some work. If there is a chance to get into one end of the basement, shut down the lines at the other end so that they will not drive the smoke against the advancing men. These lines should be held here to keep the fire back if it is driven ahead.

If you should have a house that is built on the grade, without many windows, you will have to cut holes, bringing the smoke to the first floor where you can get rid of it. These houses generally have an outside entrance and one from the kitchen. If these are opened and an opening made in the front, the draft will take most of the smoke out. If there is a hot air furnace in this house, the fresh air intake is near the front door and can be used for an opening by pushing down the pipe. Whenever an opening has been made, be sure to protect it so that the flames do not come through and spread the fire. Remember that if you can get to the seat of the fire without cutting holes or breaking windows, well and good. But, do not wait until the pressure has been built up and forced the fire into every crack and crevices and so spread the fire through the whole house.

### Store Building Fires

Next, we will take an ordinary store building in the middle of a block. Arriving at the scene of the fire, we find the building heavily charged with smoke. Go to the front and rear and open the doors. Be careful of a back draft explosion. After these have been opened and we still can't get in, go to the roof and see if there are any openings. If there is a skylight, open that. Most of the time, these can be lifted off and tipped over. This saves you from breaking the glass. If there is an elevator shaft, open this up and be sure your elevator is below the floor where the fire is. Remember again, if your fire shows up at one end of the building, and your ventilating shaft is at the other, be sure to stop the flames from traveling the length of the building. Also, protect the exposures on the roof. If there are no openings on the roof, open the small windows above the plate glass windows, which are called transom lights. These are close to the ceiling and will allow the heat and smoke to raise and escape so you can get in under it and locate the fire.

Be sure to get into the stores on each side to see if the fire has gotten through any place.

### Fighting Fire in a Store Basement

When we have ventilated the first floor and found no fire, it must be in the basement. Here we again have a hard job. First open all windows in front and rear. Then, if possible, crawl along the floor and try to locate the fire by finding a hot spot on the floor. Cut a hole here and use your cellar nozzles. Sometimes, it is impossible to get in very far. Then, cut holes near the door. After a hole has been cut and not being used, protect it by placing something over it. You might be able to use your stairway going upstairs for ventilating. In many buildings, the cellar stairs are placed under these: in this case, open up the stairway leading upstairs and make an opening through the roof over these stairs. Again, be sure to protect this exposure. If the men can get in from one end, shut down the lines at the other end, as explained before. Here also, if there are partitions, you must get over them first and open up. Here is where your inspection comes in handy, because you would know how your basement was cut up.

### Some General Rules of Ventilation

If the fire should be in a loft of a building covering more than one store or flat, be sure to open up the roof as nearly over the fire as possible, so as to keep the fire from spreading and being drawn down into the walls.

In opening a roof or skylight to ventilate the floor below, be sure that the opening is made all the way through. In opening a roof always keep your back to the wind.

For flat buildings, school houses, factories, and office buildings, no general plan can be made. These buildings house many people, and if you use stairways and elevator shafts for ventilating, you might fill with smoke and gas the only means of escape. If the smoke starts to mushroom at the top, you must open the skylights.

Be careful of the air circulating system in school houses, so that it does not blow smoke and gas into every room.

In factories and other large buildings, you can get some idea of how the building is constructed and the position of the stairway, elevator shaft and light wells by looking at the ground floor plan.

### Handling Gases Heavier Than Air

In this discussion, I have not tried to explain what should be done when we find gases heavier than air. These need special ventilation and we must know the nature of the gas. We might get the gas out of the building, but in so doing, cause the loss of a great number of lives on the outside. Most of the gases that we

**Window Displays Arranged for Fire Prevention Week**

Attractive window displays, two of which are illustrated, were arranged in Daytona Beach, Fla., as part of Fire Prevention Week by men of the Fire Department. Fire prevention talks were made at the twenty schools in the city and fire drills were conducted. Talks were also made at meetings of the Rotary, Lions, Kiwanis and other fraternal and business organizations, and the churches cooperated. The speaking staff consisted of Deputy Chief R. B. Johnston, Captains D. S. Finney and Charles E. Lee, and Fireman Thomas E. Spain.

find in drug stores and other fires are generally heated and will travel with the smoke.

The Indians years ago knew what ventilation meant. In their wigwams, they had a fire in the center and had an opening directly above it with a wind shield on it so that the wind would not drive the smoke down but suck it out.

If we had made as good progress in ventilation as has been made in salvage work, our buildings and houses would be easier to ventilate. With salvage work, they have shown the architect that there should be some way to get rid of the water quickly, so holes have been made through the walls, called scuppers, through which the water drains out.

About the only place that we have automatic ventilation is on the stage of a theater. When a fire occurs here, ventilators on the roof are opened by fuse links melting and releasing weights which open the ventilators.

Many of our fireproof buildings have a concrete slab on the ceiling of the elevator shaft, with only holes through it for the cables to run. Here the elevator is no good to us, if we want to use it for ventilating.

I think we should get in touch with our building inspector and see if some system could not be worked out to make ventilating easier. Something will have to be done, because it is hard work trying to cut holes through concrete.

Some of the larger departments have built miniature office buildings, with glass sides and have proved that they can control the path of smoke and fire with proper ventilation.

### Some Points to Remember

In summing up this talk on ventilation, try and remember the following:

Do not start ventilation until you have some means to put out the fire.

In heavily charged buildings, open at the top first.

Be careful of back draft and other explosions.

Protect your openings so that your fire does not spread.

Do not ventilate so that the fire will be drawn to areas not involved.

Do not ventilate recklessly, thereby destroying property.

Do not wait with your ventilation. Start as soon as your hose lines are ready.

Never send one man into a building or onto the roof to ventilate.

When going to the roof or upper floors, always take a rope with you.

Do not be discouraged if your first case of ventilation is not a success. Sometimes the atmosphere is heavy and the smoke seems to hang to the ground.

I have tried to give a general plan for ventilating. But, to make a detailed explanation of ventilating a building, an inspection must be made. This should be done with every building in the district, so that, when a fire occurs, the Chief would know exactly how to proceed without wasting any time.

(Excerpts from a paper read before the Northwest Fire School.)

## New Station Urged for Stratford

Fire headquarters at Stratford, Conn., is dangerous both for the safety and health of firemen, Chief Allen D. Judson has informed Town Manager Donald S. Sammis in his annual report. He is of the opinion that the present structure, a two-story wooden building located next to the town hall, should be replaced with a modern building as soon as possible.

There is only one narrow stairway leading from the inside of the building to the upper floor of the fire house. It is directly over the huge boiler which furnishes the heat for the town hall.

Commenting on the small number of fires, Chief Judson said that he believed the fact that many policies had been cancelled during the days of the depression that people were more careful and protected themselves against fire hazards.

THOMAS F. MAGNER.

## CORRESPONDENCE

### Roof Covering Practice

*To the Editor*:

I was very much interested in an article in the October issue with reference to salvage work.

When I was in command of the local volunteer corps, we established a practice which has worked out very well. We found, of course, that owners and occupants would abuse the privilege of having covers left, and would delay as long as possible making roof repairs. (Of course, we removed interior coverings when drip ceased and we made no charge for this service.)

We, therefore, established a maximum of forty-eight hours free roof covering, exclusive of Saturdays, Sundays and holidays. If roof covers were desired beyond that time, we made a charge of $1 per cover, per day, with a minimum of $10. The funds thus obtained were put into a special fund for purchase of new covers. Exceptions were made for poor families, of course.

Yours truly,

WM. PAUL BABCOCK.

### Shall There Be Honorary Chiefs?

*To the Editor*:

Your editorial, "Handicapping the Volunteers," referring to a law passed in New York prohibiting the carrying of Fire Department plates on privately owned cars, brings to my mind the question, "Why honorary titles?"

Of all the foolish and childish methods of appealing to a person's vanity, the giving of a title or rank to anyone outside the profession of that rank or title is, to my mind, a most ridiculous procedure.

Surely there should be other ways of showing appreciation toward those who have been friendly or helpful toward the Fire Department than by conferring an empty title. There must come a time when some Honorary Chief is asked to what department he belongs, and it may be humiliating for him to explain that he is not that kind of a Chief.

Here in the United States we have doctors, judges, captains, etc., who are not doctors, judges, captains, etc. In Kentucky we have a vast army of Colonels who are not Colonels and in New York City we have many Chiefs and Deputy Chiefs who are not Chiefs or Deputy Chiefs.

In the final analysis it simply means the seeking and granting of special privileges to which the average citizen is not entitled, and it is therefore much resented.

Why not cut all this nonsense out and leave the titles and ranks to those actually in the profession? This would eliminate a lot of criticism and would not penalize those who are the real thing.

Very truly yours,

ROLAND BENDEL.

Decoto, Cal.

EDITOR'S NOTE: Reviewing the work done by some of these honorary officers, issue must be taken with your stand. One Honorary Deputy Chief has given over $125,000 to Fire Department activities, mostly for benevolent purposes. Another has raised over a quarter of a million dollars for the firemen's relief fund through fire department baseball games. Still another has served as Honorary Fire Department Surgeon for nearly two decades, being the first physician to arrive at fires in almost every instance. He has done a tremendous amount of work in saving life and caring for injuries to firemen and the public at fires. He gets no compensation for this. A fourth honorary officer supplies information on the department to the Press so that correct data concerning all fires appears in the newspapers.

It is impossible to pay these men. They are not after pay, but they are greatly interested in Fire Department work. To be honored by an honorary title is enough compensation. They rarely, if ever, abuse the privileges which go with the designation, including the use of Fire Department automobile plates.

## September Fire Losses Lower

Figures released by the National Board of Fire Underwriters show that the fire losses in the United States for September, 1933, as compared with September, 1932, show a decrease of $10,000,000 or a drop of 33.98 per cent. For the first nine months of 1933 the losses were $245,351,712 and for September $20,447,571.

# THE ROUND TABLE

**For Practical Discussion of Current Fire Department and Fire Management Problems**

## PERIODICAL MEDICAL EXAMINATIONS

WITH the exception of impairments that are the result of accidents, physical ailments develop gradually and often they are not discovered until due to advance stages, they become evident through the manifestation of pain. Because of the heavy energy demand made on the body by the firemanic tasks, it is necessary that a fireman must approach physical perfection, in accordance with a definite standard.

Physical defects that are not evident on the surface can only be discovered by subjecting the men to thorough medical examinations. These periodic examinations serve to check the spread of some organic disorders and are thus of material benefit to the men.

The question in full that is discussed in this issue appears in the box on this page. Due to the large response to this discussion, it will be continued in the next issue. Should you have a question that you would like to see treated in this department, write to the "Round Table Editor," FIRE ENGINEERING, 24 W. 40th Street, New York, N. Y.

### Discussion of the Question

**Louis Almgren, Chief, San Diego, Cal.:** The Fire Department Surgeon gives annual physical examinations to San Diego firemen. The examination often brings to the attention of the man minor physical defects of which he is unaware, such as teeth needing attention, hernia, high blood pressure, underweight or overweight which may be corrected, defects in vision or hearing and any other physical defect. Many of these may be easily cured at the beginning but might cause serious results if neglected. Firemen who have defects are re-examined to see that the recommendations of the surgeon have been complied with.

It is the duty of all firemen to keep themselves in good physical condition. If after fifteen years service one has a physical or mental breakdown every effort is made to find the cause and remedy it. He is given service in least active districts and responsibility is reduced as much as possible. After twenty years service, if his condition does not respond to treatment he is pensioned on half pay.

Our present system of conducting physical examinations is satisfactory and beneficial both to the Department and to the personnel. An improvement would be to have examinations semi-annually.

**Charles A. McGinley, Chief, East Orange, N. J.:** No periodic medical examinations are given in our Department, other than an entrance examination when a man takes a civil service test, and also when he is appointed a probationary fireman and when his probationary period is over.

After one year of illness, the law compels the pensioning of any member of this department, who by reason of physical disability, cannot perform his duties. This is a State law and governs fire departments operating under Civil Service rules in New Jersey.

In the event that a man would recover his health after being pensioned, the law does not provide for a re-entrance examination, nor does it provide for the man to again resume his duties.

I doubt if it could be improved upon and it is my opinion that after a man performs fire duty for years, invariably his physical condition is impaired due to the arduous duty he performed. Therefore, nearly every man examined would be found with some physical defect. While these defects would be present they would not interfere with his proficiency as a member of the Fire Department. Periodic examinations would perhaps cause the man to retire if some physical defect were called to his attention from time to time. Just as long as a member of the Fire Department can perform his duties well, he should be allowed to do so without that petty annoyance of a periodic physical examination.

Only when a man is physically or mentally incapacitated should he be subjected to a physical examination.

**William Ziegler, Chief, Hackensack, N. J.:** We do not at present give the members of this department annual or periodic physical examinations.

If a man is in such poor physical condition that he is no longer fit for active duty, he is required to have two physicians certify to his disability. Upon submitting this proof to the Pension Fund Commission, that body retires him on pension.

Although we do not have periodic physical examinations at present, I believe that such examination should be given the members annually. It would tend to prevent minor ailments from developing into serious proportions, thereby keeping men on duty and preventing early retirement.

**Ralph J. Scott, Chief, Los Angeles, Calif.:** This department employs one physician, whose duty it is to examine each member of the Department at least once each year, giving comprehensive routine examination. His findings and recommendations are made a matter of record and acted upon as the circumstances indicate. Some individuals may be examined many times in the course of a year, officers having the authority to send members for examination at any time it is deemed advisable, in the event the physical condition or if appearance of a member seems to justify such action.

A man found in such condition that he cannot perform fire duty is, generally speaking, restored to health if possible by treatment, without making close inquiry as to the cause of his disability. We believe in principle that the department can give better service to the city if its men are kept fit. If a man's physical condition is such that he cannot function in the department, and it can be established that his condition is traceable to exposure or injury in line of duty, he is recommended for disability pension retirement. If a man is incapacitated through other reason

### HERE IS THE PROBLEM

Does your department give the men annual or periodic medical examinations?

What do you do where a man has been in service about fifteen years, and you find he is in poor physical condition?

In what way do you believe your present method of conducting physical examination of the men could be improved?

than line of duty, and is worthy otherwise, the department goes to considerable length to take care of him by placing him in some special assignment where he can render service, the department being especially considerate in cases of members having fifteen years or more service. If he cannot perform such duties the department has no alternative but to terminate his services. In this department men are allowed by law fourteen days off at full time, followed by sixteen days at 65% of salary, for necessary absences account of illness or injury not attributable to line of duty. For injury or sickness incurred in line of duty, one year at full pay is the maximum allowed.

We are fairly well satisfied with our methods of conducting physical examinations as at present carried on. These examinations take place at the Department Clinic, operated jointly by the department and by the Firemen's Relief Association, known as the Medical Records Bureau. This Bureau is in command of a Captain. Inspectors under his command make constant contact with men off duty, reporting their progress toward recovery. Two members of the Department, qualified as Chiropractic Physicians, are also assigned to this Bureau, and are constantly occupied. The Clinic is well equipped with apparatus. The work performed by the Department Physician is such that he is required to serve long hours. If finances would permit, the department would provide at least one additional physician. There are contemplated unmatured plans for improvement in hospitalization service furnished members injured or sick as result of line of duty. However, this point is not directly related to the questions presented.

**Olander Lind, Chief, Kansas City, Kan.:** Our department does not give the men annual or periodic medical examinations.

When a man becomes in a poor physical condition, and is unfit for further service, he is placed under the department physician's care. If at the expiration of one year, his condition has not improved enough to be in service, he is dismissed from the department. But if his condition was caused by his activity pertaining to, or while performing his duties in the service, he is retired on a pension.

Each applicant for service in the department is given a thorough physical examination by the department physicians, before being admitted into the service. This method has been very satisfactory in our department.

**M. S. Phillips, Ex-Chief, Chicago Heights, Ill.:** Our department does not give the men annual or periodic medical examinations. Unless a man's physical condition is very poor, nothing is done about a man serving fifteen years. No examination has ever been made. The men are appointed and that is all there is to the matter.

**Thomas M. Lane, Chief, Alameda, Cal.:** My department does not give the men annual or periodic medical examinations.

If a man is in poor physical condition due to department work our pension ordinance takes care of this case and he is retired at half pay, but if his condition is due to an overt act on his part he is kept on sick leave for a certain period with full pay which is graduated as to the amount of time he has been in the service of the department.

**Charles M. Donnelly, Fire Marshal, Peoria, Ill.:** We do not have annual or periodical medical examinations. There is an examination made at the time of appointment.

When we find a man in poor physical condition after several years of service, he is examined by a doctor selected by the Pension Board of the Fire Department. If he is found physically unfit to fill the duties of a fireman, and his physical disability can be traced to his occupation as a fireman, he is retired with a pension of half pay.

After having been retired for physical disability, he is subject to a re-examination at any time designated by the Pension Board, and if found physically fit, can be placed back in the Fire Department in the position he held at the time of his retirement.

We believe that our present methods of procedure have been working satisfactorily in our department, and at this time could recommend no change.

**C. A. Burns, Chief, Little Rock, Ark.:** When an applicant for a position in the Fire Department files his application with the Civil Service Board, he must stand a physical examination, and be in good health and good physical condition in every way. He is given no further examination then unless he is injured or disabled through illness. He must file a physician's certificate in my office when sick or injured, and a release from his physician when he reports for duty.

When a man is found to be in poor physical condition in the service, not able to perform his duties as he should, he is given a thorough examination, and if disability shows permanent, he is retired on pension. If not permanent he is carried on the payroll until he has recovered and ready to perform his duties. (For a reasonable length of time—6 months.)

I know of no way our present method of conducting physical examinations could be improved. Besides requiring a certificate from any reputable physician as to the physical fitness of the men, our Board's physician examines them at any time we think it may be necessary.

**Earl A. Traeger, Chief, Minneapolis, Minn.:** Since assuming charge of this department I have made a study of the sick records of the personnel of the department. Members recorded sick very often are ordered before the city physician for a medical examination. This has materially reduced the sick list of this department.

When a man has served fifteen years and is in a poor physical condition, he is assigned to a light duty company and given a chance to recuperate. If impossible to do this, he is retired on a partial disability pension.

The loss of service through sick leave with pay is a serious problem in these times of depression, with a reduced budget and personnel with which to operate, therefore we must of necessity rather than choice, be concerned with keeping as many of the personnel on duty as possible, and in that respect I am a firm believer in annual medical examinations. Only in extreme cases do I believe that a man's poor physical condition should be the cause for separation from the service. Annual examinations would make the individual fireman health-minded, and would be of material benefit not only to the personnel but to the taxpayer as well.

**C. R. Dailey, Chief, Colorado Springs, Col.:** Our department does not give the men annual or periodic medical examinations, other than the one given them when they come on the job.

If the man is physically unfit for the work of a fireman, he is of course pensioned. If he is merely in poor condition, he is sent to an outside station in the residential district where the work is light and he is given a chance to build himself up.

All members of the department should be given a thorough physical examination annually. This would bring to light any weakness or condition leading to bad health and give the man warning before the condition had gone too far. Such a course properly followed out would undoubtedly save many men from going on a pension years before they should.

**George S. Watson, Chief, Washington, D. C.:** This Department does not subject its entire personnel to periodic physical examinations. At the beginning of each fiscal year (July 1), all men whose physical condition is doubtful either by reason of age, injury or illness, are brought before our Board of Police and Fire Surgeons for survey. Those found unfit for further duty are retired and pensioned.

We make no distinction as to length of service so far as retirement for disability is concerned. Our pension law provides that the disability, to warrant pension, must have been incurred in the line of duty, but it is extremely rare that we are faced with disabilities in physically unfit men which definitely are not service connected.

The procedure which we follow is one which has been evolved after many years of experience, and we believe it is working very satisfactorily.

**Wm. J. Lutz, Chief, Wilmington, Del.:** The Department Surgeon gives each member of the Fire Bureau a

## HERE IS THE PROBLEM FOR THE NEXT ISSUE

Due to the large number of Chiefs who participated in this discussion, it has been necessary to hold over a portion of this material for publication in the December issue.

medical examination annually. It is beneficial both to the member and the department. It gives the member the opportunity to check his own physical condition and it enables the department to keep specific records of the physical condition of the members of the Bureau.

Any member may be retired after twenty years of service. The paid department has only been organized twelve years. The periodical inspections, we believe, are very beneficial.

**L. J. Urbanski, Chief, St. Joseph, Mo.:** Our department does not give any examinations after the man has entered the service of the department.

We do nothing about a man in poor physical condition unless he is unable to perform his duty. If two good reliable physicians pronounce him unable to continue to work, we pension him. If, however, he regains his health we have the right to call him back to duty or discontinue his pension.

I think that if we had a more severe examination when the men enter the department it would eliminate disability and sickness in later years.

**Charles J. Henry, Chief, Lexington, Ky.:** Our department does not examine the men annually. In the case of a fireman in bad health after fourteen or fifteen years service traceable to active duty he is eligible for a pension, and is retired on half pay. In the case of lingering illness, he is paid full time for the first fifteen days, half time for the next ninety days, after that date he receives no pay until he returns to work. In the case of an accident while on duty, full time and any expenses incurred due to the accident are paid by the city. In case of sickness contracted in line of duty, pay is allowed as for an accident.

Due to the strenuous duties of a fireman, I believe that the physical examination should be very strict and thorough and no person allowed to enter the department with physical defects, unless of such minor nature that could and should be corrected at once. The civil service examining board should pass only men as nearly physically perfect as possible, and then periodical examinations should be given members of the department. In case of a marked decline in the members' health record, the cause should be detected and remedied before it is allowed to develop into a more serious or permanent state.

**H. C. Crumb, Chief, Bay City, Mich.:** This department has no annual or periodical examinations. In case we find that a member is in poor health and not able to do his work as a fireman regardless of his years of service we have the privilege of having the man examined and if his condition was brought about by his duties as a fireman, then he is pensioned.

The practice of medical examinations to all members of the department at some regular period would, no doubt. improve the physical standing of the rank and file of a Fire Department.

**W. H. Funderburk, Chief, Springfield, Ill.:** Our department does not give medical examinations at any given time. If a man's health is impaired he is given an opportunity to regain it, but if he does not again become well he is placed on pension, under the disability clause.

We could not improve our present system unless we have periodic examinations. Our method is a medical examination at the time of test for eligible list, and then again on receiving appointment. If a candidate fails on medical examination, he does not receive his appointment.

**Thomas J. McCarrick, Chief, Revere, Mass.:** We do not require annual medical examinations for our men. However, men are at liberty to confer with the city physician at their discretion.

We have had no experience of men being in poor health after serving fifteen years. My action would be determined by the nature and degree of incapacity. Unless there be evidence to the contrary, I believe that the presumption should be that the disability is of service origin and thus service connected. I think this is a fair conclusion because we know that the man entered the service in a sound physical condition, this being attested to by our State Civil Service Department. If the man is disabled to the extent of inability to perform the more rigorous duties, he would be assigned to some form of lighter duty consistent with his condition, otherwise, he might be retired on pension as provided for by law.

The wisdom of periodic medical examinations for any person certainly cannot be questioned, but if made obligatory in municipalities, there is a hazard involved that might jeopardize the position of men who in reality are physically fit to carry on.

* * *

## ANSWERS TO PREVIOUS QUESTIONS

*The following reply was received in answer to a previous question on whether or not the legalized 3.2 per cent beer should be permitted in the fire stations or at department functions:*

**C. F. Baker, Chief, Highland Park, Mich.:** The fact that the 3.2 per cent beer is termed non-intoxicating does not offer enough proof that some bad effect cannot come from it in the event of over indulgence when allowed in an engine house.

There will be, no doubt, a bootleg beer made and sold, and the event that legal beer is allowed to be brought into the fire stations, there no doubt will be some members who will try bringing in some of the stronger beer to "put it over on the officers."

I have noticed the effect of this 3.2 per cent beer on some of the people since its adoption and I am not so sure that they could perform the duties as a fireman efficiently. Some people can consume more than others with no bad effect, therefore I can see no way in which rules can be written to regulate its use. I do not approve of the practice of drinking beer in an engine house.

*The following answers were received in reply to a previous question concerning regulations requiring fire apparatus responding to fires to obey traffic rules:*

**Harry J. Brown, Chief, Reading, Pa.:** A recent act in the laws of Pennsylvania make a driver responsible for any damage, injury or death if it can be proven that he was reckless, or careless in the performance of his duties. As it is the first thought and duty of a fireman to save life at a fire, why should they then jeopardize the lives of others when responding to alarms by reckless driving.

Our department has a standing rule for responding to fires at 25 miles an hour and to have the machine under control when passing traffic lights.

Traffic rules and traffic lights are installed to aid traffic and should be respected as such. Our drivers are taught to have the machine absolutely under control at all times.

**A. Hardy, Mgr., A. Hardy Co., Baltimore, Md.:** Your recent discussion on traffic rules governing fire apparatus was read with interest. Imagine my surprise to learn of the "assinine indifference" that is accorded Fire Departments by some communities, causing the average motorist to regard the Fire Department with impunity.

Having been a staunch supporter and lover of the

**Feature of Savannah Fire Prevention Parade**

This photograph, taken just before the start of the fire prevention week parade in Savannah, Ga., shows Miss Daisy King Moore of that city, who won the national fire prevention poster contest last year. In the center is the winning poster and at the right, Chief Monroe. No one will dispute that the poster and the artist have merit.

department for years, I deem the Fire Department the only perfect organization in the world as regarding equipment, morale and efficiency. It is the only body that functions without delay, hesitancy, persuasion or cessation. Therefore, to curtail, in any way, the performance of the department, lessens it in the public esteem.

The duty of the department is to save life and property from fire, an element that "waits for no man." Therefore the department must use all speed in reaching the scene of trouble.

I hold that a fire engine is neither a commercial vehicle or a pleasure car; but rather an emergency vehicle. Therefore I would not subject it to the ruling of any law governing ordinary traffic, for to do so would place it in the category with all vehicular traffic, giving it no preference over other motor cars.

This being my theory, I conclude that traffic lights should apply to regular motor cars only and not to emergency vehicles. A fire truck has a siren and bell to demand right of way. These warning devices supercede all lights.

Traffic lights are only to control the flow of traffic, not to govern it. Laws govern the handling of traffic and lights are a part of the law, but the laws say, "stop" upon the approach of fire apparatus. The traffic light then becomes inconsequential immediately. Common sense precludes the idea of traffic regulation of any kind for fire trucks.

As long as the average motorist is aware of the fact that the department will "play up to him," just so long will he "take chances." In the August issue of your publication are some concrete examples: (Page 245)—Crash Kills Fire Captain; (Page 249)—Apparatus Must Obey Traffic Rules; Picture of crash between fire truck and auto; Two Verdicts Against Cities in Accidents.

The Chief of the New York Fire Department says "Fire apparatus must be driven with slower speed because 'motorists have no regard for Fire Department.'" A serious indictment indeed against the motoring public. It shows that some department is falling short of their duty in respect of giving the Fire Department better support.

In Baltimore, the department has the full cooperation and support of the Police Department, the object being to minimize fire losses, protect the firemen and apparatus and make people understand that a fire is a serious matter and not a "Roman holiday."

The rush and dispatch of fire apparatus is not to appeal to the spectacular, but rather to down the efforts of Fire in his avowed purpose to devour and destroy. To "save" life and property, the Fire Department must "save" precious seconds getting onto action. It can not do this with an inconsiderate public to deal with.

While writing this a fire broke out less than six blocks away. Every motorist gave the right of way. But imagine that fire spreading because the department was impeded en route.

## Fire Officers May Make Arrests

A bill has been signed by Governor Lehman which gives Fire Department officers in New York State the power to serve summonses to offenders who violate the traffic regulations and the other ordinances which give fire apparatus the right of way. Every fire apparatus in New York City will carry a book of Traffic Court summonses. It was not always possible to have a policeman handy every time a motorist ignored the fire whistle or the apparatus bell.

## Volunteers Solve Arson Case

When Chief Weber and members of the volunteer Fire Department of Stone Harbor, N. J., arrived to fight a fire in a double apartment house, six separate fires were found, and evidence pointed towards incendiarism.

A neighbor, who was awakened by the barking of a dog, turned in an alarm at 2:15 a.m. The fire was extinguished at 3 a.m.

Furniture was arranged so flames would spread rapidly from four different bedrooms. In a second-floor room was found gasoline-soaked magazines and a container of gasoline. Efforts were made at once to locate the seventy-year-old owner. When he did arrive at 9:30 a.m., he appeared surprised to learn of the fire. Unknown to the owner, Chief Weber searched his automobile and found a pair of rubbers and gloves on which there was oil, a towel that had the odor of oil, and twenty pieces of silverware which matched silverware in the house. State police and county officials were notified.

At the jail, the suspect confessed to the charge of arson. A record was established for the county in settling an arson case. But 18¾ hours elapsed from the time the fire alarm sounded until the arson suspect signed a confession that he started the fire to collect $6,000 insurance.

## How a Salesman Lost an Order

An officer of the Topeka, Kan., Fire Department was persuaded by a salesman to permit a demonstration of a new type fire extinguisher. Five gallons of gasoline were poured on the ground near the station and then ignited. Nothing happened. When the flames started to scorch the doors of the station, the flames were extinguished with the department's equipment. Although this proved an interesting few moments, no order followed.

## A Family of Fire-Fighters

The Donovan family of Ohio boasts of 132 years of fire-fighting service. Chief George H. Donovan of Urbana, Ohio, is a retired Acting Fire Marshal of Cincinnati where he served for twenty-five years and he has been Chief in Urbana for thirteen years. His father was Assistant Chief in the Cincinnati Fire Department and served forty-two years; his brother served thirty-nine years; his son, Larry F. Donovan, served thirteen years with the Urbana Fire Department.

## Time of Coupling Hose Reduced

A coupling which facilitates the connection of lengths of hose, has been designed by Theordore Slovinski, formerly of the Grand Rapids, Mich., Fire Department. The manufacturer claims that it will easily attach to any thread, no matter at what angle it may be applied, and without any danger of stripping the thread. It can be attached to a hydrant or hose coupling by one man without the use of any tools. There are no moving parts to the device, nor any adjustments to be made.

**Chief M. S. Philip** of Chicago Heights, Ill., retired after serving as Chief for twenty-one years and a fire-fighter for thirty-seven years. Up until his appointment as Chief on June 1, 1912, he had served as a volunteer fireman for sixteen years. J. C. McCready, Assistant Chief, has been promoted to Chief.

**Remote Control System Protects Newton, Mass., City Hall**

A Gamewell master fire alarm box has been installed on the outside of the Newton, Mass., city hall and war memorial which was recently completed at a cost of $850,000. Chief Randlett is shown operating the box. This system makes it possible to connect remote control stations within the building, directly to the municipal fire alarm system, through the master box. No local batteries are required.

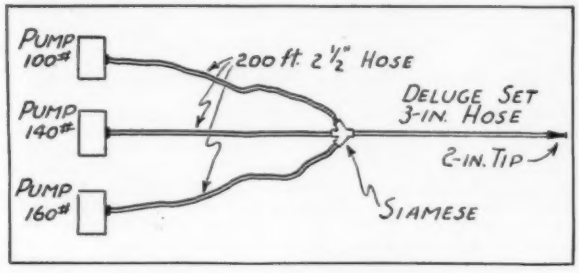
# Questions and Answers

**NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified**

## Nozzle Pressure on Siamesed Layout

*To the Editor:*

Please give me the solution of the following hook-up, where nozzle pressure is desired. R. V.




*Answer*: The simplest way of solving this problem is to average the pressures at the three pumps and then use the Underwriters' formula for solving nozzle pressure

To average the three pump pressure we add them together and divide by three, giving us 400 dividend by 3, or 133.3 pounds.

The value of K, in the Underwriters' formula, for 3 parallel 2½-inch lines of hose siamesed into a deluge set is .190.

It is assumed that there is no stretch of hose between the siamese and the 2-inch tip except the hose attached to the deluge set.

L, which is the number of lengths of 2½-inch hose in the line, is 200 divided by 50, or 4.

Then N.P. = E.P. ÷ (1.1 + K.L.)
= 133.3 ÷ (1.1 + .190 x 4)
= 133.3 ÷ (1.1 + .76)
= 133.3 ÷ 1.86, or 71.7 pounds N.P.

## Refrigerating Systems

*To the Editor:*

Will you kindly explain to me a question that puzzles me on the "Cycle of Refrigeration." I know there are two types of refrigeration namely: Compression and absorption. But I am puzzled as to the methods employed by each. Are they the same? Or are they different? Do they both employ the same parts, like, compressor, absorber, receiver, etc., or are the parts of each system different. Thank you. S. G. R.

*Answer*: *Compression Machines*: The media generally used in compression machines, ammonia, sulphur dioxide, and carbon dioxide, exist only as a gas or vapor at atmospheric pressures and ordinary temperatures, but they are liquefied when compressed to a sufficiently high pressure and cooled. The heat absorbed in re-evaporating the liquid at a reduced pressure constitutes the refrigerating effect. To periodically return the refrigerating medium to its original liquid state, the system must comprise the following parts: 1. Evaporating coils, wherein the liquid is evaporated, absorbing heat from its surroundings and producing the refrigerating effect. 2. The compressor, in which vapor from the evaporating coils is compressed into the condenser at a terminal pressure corresponding to the temperature of the saturated vapor obtainable with the cooling water available. 3. The condenser, in which the latent heat and heat of compression are removed and the vapor liquefied by cooling water circulated through or over the condenser pipes or tubes.

*Absorption Machines*: Superheated ammonia, gas and steam are driven off from a solution of ammonia and water in the generator, heated by steam coils. The total pressure existing in the generator consists of the partial vapor pressures of ammonia, gas and water. The vapors leaving the generator are condensed in the rectifier (dehydrator) in which the temperature is maintained at a sufficiently low point to condense practically all of the water vapor but not the ammonia. The condensed water re-absorbs a portion of the ammonia and is returned to the generator as rich liquor. The practically dry ammonia gas is then liquefied in the ammonia condenser and expanded in evaporating coils, producing a refrigerating effect as in the compression system. The expanded ammonia gas from the evaporating coil is re-absorbed in the absorber by weak liquor drawn from the bottom of the generator. The rich liquor produced by absorption is returned to the generator, flowing over a series of trays in the analyzer where it reduces the superheat in the gases given off by the generator. This reduces the amount of heat to be removed in the rectifier and condenser. The analyzer is sometimes omitted to reduce the first cost of the apparatus, but the saving is effected at the expense of economy in operation. The pressure existing in the generator and rectifier depends on the temperature maintained in the condenser, which, in turn, is governed by the quantity and temperature of cooling water available.

Calculations for the design of an absorption machine involve: 1. Dalton's law of partial vapor pressure, modified. 2. Properties of saturated and superheated steam and saturated and superheated ammonia vapor. 3. Boiling point of ammonia solutions of various strengths corresponding to various pressures. 4. Weight of ammonia absorbed by water. 5. Heat developed by chemical reaction occurring when ammonia is absorbed by water.

I would recommend that you refer to either a book on mechanical refrigeration, or to "Kent's Mechanical Engineers' Handbook," wherein is given diagram of the absorption machine.

The compression machine is much simpler than the absorption machine, but it uses higher pressures, and for that reason is not commonly employed on board ships where the consequence of rupture of high pressure refrigerating system would result in an exceedingly dangerous situation. On the other hand, the compression type of machine is used almost entirely on land, for this type of machine costs less to install and operate.

## Yellow Paint for Hydrants

*To the Editor:*

Can you tell me what the formula is for mixing the yellow paint used for painting fire hydrants?

M. G. W.

*Answer*: The following answers to this question were received from chiefs using yellow paint for hydrants:

Chief George Van Zant, New Castle, Ind.: "We paint our hydrants every summer using high visibility yellow enamel furnished by the Tropical Paint Company of Cleveland."

Chief Thomas H. Shipman, New London, Conn.: "In painting our fire hydrants we use a Standard Brand of Hydrant Yellow Enamel, which can be purchased from any reliable paint manufacturer. Inasmuch as we have not tried to mix our own hydrant paint we find the hydrant yellow enamel (ready mix) satisfactory for one year."

Chief J. T. McNulty, St. Petersburg, Fla.: "Our fire hydrant paint we buy ready mixed."

Fire Department, Charleston, S. C.: "Yellow fire hydrant paint should consist of the following: grind (in a water cooled Buhr Mill) 85 lbs. chemically pure chrome yellow, 10 lbs. magnesium silicate, 2 gallons gum grinding japan and 2 gallons raw linseed oil. Reduce the above paste with 15⅝ gallons of enamel mixing varnish. The above formula produces approximately 22 gallons. Paint is now ready for use."

## Children Have Active Part in Program

Children of Coffeyville, Kan., had an active part in the observance of Fire Prevention Week. Six hundred members of the Junior Fire Fighters, an organization created by Chief Hanna last year for teaching fire prevention to the younger

**Junior Fire Fighters Assembled for the Motion Picture Show**

generation, participated in a parade. On Saturday morning the youngsters witnessed a free showing of the motion picture "Flames."

During the week, talks were given by J. Burr Taylor, of the Western Actuarial Bureau and C. A. Durand, of the local department. A demonstration of the dangers of defective wiring was arranged by Asst. Chief W. B. Livingston and Mechanic A. Stewart of the local department.

## Rhode Island Chiefs' Club Meets

Chief Frank Charlesworth, of Providence, R. I., presided at a very well attended meeting of the Fire Chiefs' Club of Rhode Island held in the old Pioneer Volunteer Fire Company Hall, Providence.

T. Z. Franklin, of the Automobile Insurance Association of America, explained how explosions and fires occur through spontaneous combustion, and enlivened his talk with demonstrations.

Col. Allen Peck, of the Pennsylvania Petroleum Products Corporation, gave a demonstration of a domestic oil burner that had many safety devices for the control and prevention of fire.

Alfred N. Miner, Chairman of the Fire Prevention Committee of the Massachusetts Safety Council, spoke on the progress made in fire prevention and firemen's training in New England.

Joseph F. MacDonald gave a report of the July and October meetings of the Rhode Island State Firemen's League.

The club was entertained by Ex-Capt. John J. Mullen, of East Providence, the East Providence Fire Department Orchestra and the Pennsylvania Petroleum Products Corporation radio boys. The meeting was preceded by a spaghetti supper.

## Illinois Firemen Appeal for Back Pay

President Roosevelt was urged to bring about amendment of the R. F. C. regulations so that funds will be released to aid 12,000 unpaid Illinois firemen. This resolution was passed at the forty-seventh annual convention of the Illinois Firemen's Association held at Rockford, Ill., October 17-19.

Capt. C. E. Strom, Rockford, explained how the services of a Fire Department can be sold to the public. John G. Millhouse, Director, State Department of Mines and Minerals, spoke on, "Gas Masks as Used in Mining." A number of other papers were presented.

The officers are Joe Valentine, Rock Island, President; Frank J. Rutkowski, Steger, Vice-President; Roy W. Alsip, Champaign, Secretary; Simon Kellerman, Edwardsville, Treasurer and Elmer W. Weidler, Mt. Olive, Historian. The next convention will be held in Granite City.

**Capt. William P. O'Brien,** formerly of the Detroit Fire Department, and Manager of the Detroit Fire Extinguisher Service Company, Detroit, died on October 12 as the result of pneumonia.

## Dallas Makes Many Improvements

All 750-gallon pumpers in service in Dallas, Tex., have had 82-gallon booster tanks installed, and all major apparatus are equipped with 5-gallon water pump cans. Eighteen pumpers and one hose truck are provided with three hundred of 1½-inch hose connected or siamesed off the 2½-inch hose. This gives each company two 150-foot leader lines of the 1½-inch hose with ¾-inch nozzles. This connection is laid out first at every fire, unless the officer in charge orders otherwise. Most of the major apparatus have pneumatic tires.

A night patrol has been established in the business area. The patrol starts at 9 p.m. The first shift of nine men work to 1 a.m. and are relieved by nine others who work until 5 a.m.

Each year has shown a distinct drop in fire losses. For the first five months in 1931 the losses were $698,698, for the first five months of 1932, $611,659, and for the first five months of this year, $272,836.

Chief Rod D. Gambrell is trying to get the city to adopt a new fire prevention code.

## Cities Active During Fire Prevention Week

Newark, N. J., carried out an intensive campaign to carry the message of fire prevention to the various homes and residents of the city during Fire Prevention Week. Every civic organization in the city which held a meeting during the week devoted it to fire prevention. Newspapers carried reports of fire prevention talks and meetings and special editorials daily during the week. Several radio talks on the subject were broadcast by Newark stations.

The program for the schools was exceptionally strong. During the week uniformed firemen addressed the pupils in every public and parochial school in the city and motion pictures were shown in all the chools. T. Alfred Fleming, of the National Board of Fire Underwriters, spoke in the city. In addition, the department secured cooperation from other sources.

In Indianapolis, Ind., the week preceding Fire Prevention Week, the department conducted a school of instruction for night watchmen, custodians and janitors. During the week, a large store room was used to display 125 common fire hazards in the home. A motion picture was shown of the fire prevention activities in the public and parochial schools. Uniformed firemen gave talks before civic and luncheon clubs,

**Members of the Fire Prevention Committee of the Newark Safety Council**

From left to right, Charles M. Henry, Secretary, Newark Salvage Corps; James Keegan, Superintendent, Newark Salvage Corps; A. R. Buckman, Public Service Corporation of N. J.; Capt. Leon Kaiser, Newark Fire Department; W. A. Hall, Jr., Ryerson & Hall; Frank B. Heller, Treasurer, Schlesinger & Heller Agency; J. Elmer Pearce, Schedule Rating Office; T. Alfred Fleming, Conservation Supervisor, National Board of Fire Underwriters; Chief John J. Towey, Newark; R. C. Klemm, Architect; Henry S. Niemitz, President, Newark Fire Protection Equipment Co.; Fred M. Rosseland, Secretary-Manager, Newark Safety Council. Mr. Fleming and Superintendent Keegan are not on the committee.

department stores and theatres in the residential districts. Fire prevention material was sent to all churches.

The rescue squad gave demonstrations of first aid and the use of tools carried. The department band was also active. Forty-five of the largest and most prominent billboards in the city were obtained for Fire Prevention Week.

**An unusually low fire loss** during Fire Prevention Week was reported by Chief John H. Monroe of Savannah, Ga. A fire occurred in an automobile and was confined to one spark plug wire. The car owner insisted there was no loss.

## Fire Traps Civilian Forest Workers

Thirty-three workmen and civilian foresters were burned to death in Griffith Park, Cal., on October 3 when they were trapped in gulleys and ravines. In addition about one hundred others were injured and badly burned.

The fire victims were nearly all recruits from unemployment lists who had gone into the brush covered foothills

**A View of the Smoldering Canyon in Griffith Park**

At the right of the picture can be seen a fireman trying to work his way up closer to the fire. Fallen men, many dead, can be seen in the midst of the fire-consumed vegetation.

of the city park reservation. Many knew little about woodlands, and it is said, were easy prey for the flames because they became panicky and lost their way when the fire advanced. Some who escaped told of being so filled with fear that their muscles became paralyzed, and they fled only after the flames moved them to desperate efforts.

It is believed that some workman, in spite of the many warning signs in the section, lit a cigarette and then carelessly tossed the butt to the roadside.

The park is situated ten miles from the down town district and is surrounded by Los Angeles, Glendale and Burbank. Its small mountains are criss-crossed with riding trails. The lower areas contain three golf courses, swimming pools and tennis courts.

Nine first aid stations were established on the fringe of Griffith Park.

This was the worst fire toll in the history of the county. It occurred in an area that was set aside for the pleasure of the city residents.

## New York Fire Department Statistics

According to the report of the New York Fire Department for 1932, the division consists of 6,706 uniformed men, 360 companies and 710 motorized items of apparatus. During the year there were 31,223 fires and 14,501 false or unnecessary alarms which called out the department. Of the number of fires, 28,769 were confined to the point of starting, 2,002 to the buildings in which the fire originated and only 452 fires extended to other buildings. The two spectacular fires of the year which assumed unusually large proportions were the Cunard Steamship Pier fire and the one at Coney Island.

During the year 117 persons lost their lives at fires while 452 were injured. The property loss was $17,947,791 or a per capita loss of $2.48.

Tenement houses were the source of the greatest number of fires. There are 127,069 buildings occupied by three or more families and classed as tenement houses. There were 8,993 tenement fires as compared to 4,368 in all other dwellings. There were only 238 fires in office buildings, and 12,315 fires in vacant lots, vehicles and other outdoor places.

In extinguishing fires, 55,027,921 gallons of salt water were pumped directly from the rivers or bay, and 149,233,140 gallons of fresh water.

Careless use of matches is credited with 1,210 fires, careless use of cigars and cigarettes, 4,908, indiscreet use of gasoline and benzine, 5,955. There were 281 fires of incendiary origin and 295 classed as suspicious fires.

## WHAT'S BURNING

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of September, 1933. These figures, compiled from the telegraphic reports are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

| Month Ending October 31 | Loss in Thousands of Dollars |
|---|---|
| Norfolk, Va.—Blassingham lumber yard damaged | 50 |
| Milwaukee, Wis.—Bldg. of Consolidated Waste Paper Co. | 50 |
| Auburn, Wash.—West wing of Fox River Butter Co. bldg. | 50 |
| Massillon, Ohio—Factory of Puritan Glass Co. destroyed | 65 |
| North Athens, Tenn—Wattenbarger store and adj. property | 65 |
| Milwaukee, Wis.—Lavo soap factory destroyed | 80 |
| Elkhorn, Man., Can.—Store of Elkhorn Trading Co. | 25 |
| Continental, Ohio—Buckeye grain elevator destroyed | 25 |
| Spartanburg, S. Car.—Whse. of Carolina Whse. Co. at Camp Wadsworth | 100 |
| Chicago, Ill.—Garage and trucks of Jewett & Sowers Oil Co. | 65 |
| Pensacola, Fla.—Property of Weis-Paterson Lumber Co. | 1,000 |
| Tuskegee Institute, Ala.—Douglass Hall of Tuskegee Institute. | 50 |
| Hazleton, Pa.—Shop at Sandy Run Colliery destroyed | 50 |
| Montgomery, Ala.—Bldg. of I. Silvers & Bros. destroyed | 60 |
| Schuyler, Neb.—Wells Abbott Nieman mill and elevator | 325 |
| Rockland, Mass.—Bigelow block destroyed | 50 |
| Huttig, Ark.—Plant of Frost Lumber Co. destroyed | 200 |
| Hamilton, Ohio.—Storage bldg. of Black Clawson Co. | 150 |
| London, Ont.—Warehouse of Belton Lumber Co. destroyed | 50 |
| Bayonne, N. J.—Barge and pier structure of Standard Oil Co. | 180 |
| Greencastle, Ind.—Dormitory at De Pauw University destroyed | 80 |
| St. Thomas, Ont.—Elgin Handle Works warehouse destroyed | 50 |
| Minneapolis, Minn.—Whse. of E. S. Griffith, Inc., destroyed | 50 |
| Ingalls, Mich.—Ingalls Hotel destroyed | 50 |
| Warren, Pa.—Four bldgs. of the New Process Co. destroyed | 400 |
| Bourne, Mass.—Bourne-hurst dance hall and theatre | 80 |
| Fitchburg, Mass.—Fitchburg Art Center, Merriam Parkway | 80 |
| So. San Francisco, Cal.—Varnish plant of W. P. Fuller Paint Co. | 65 |
| Paducah, Ky.—Broadway business property | 250 |
| Culver City, Cal.—Studio of Metro-Goldwyn-Mayer | 50 |
| Fleetwood, Pa.—Bldg. of Fleetwood Body Works destroyed | 65 |
| Blytheville, Ark.—Property of A. and M. Myers | 50 |
| St. Joseph, N. B.—St. Joseph's University damaged | 800 |
| Roseburg, Ore.—Woolworth store and adj. property | 65 |
| Lakeview, Ore—Property of Peterson & Johnson Lumber Co., 25 mi. west of here | 50 |
| Mount Olive, N. Car—Barrel factory of Mount Olive Mfg. Co. | 50 |
| Atlanta, Ga.—Whse. of Atlanta Cotton Oil Co. destroyed | 85 |
| Newport, Vt.—Apartment block and six stores | 65 |
| Lake City, S. Car.—Lake City bonded warerouse | 80 |
| Colfax, Cal.—Lobner block and adj. property | 50 |
| Pickens, Miss.—Whse. of J. H. Willis destroyed | 60 |
| Tampa, Fla.—Plant of Tampa Marine Co. destroyed | 80 |
| Farmville, Va.—Bldg. occupied by Farmville Wholesale Grocery | 50 |
| Burlington, N. C.—Business bldg. owned by W. M. Long | 50 |
| Jacksonville, Fla.—Ocean-front property | 80 |

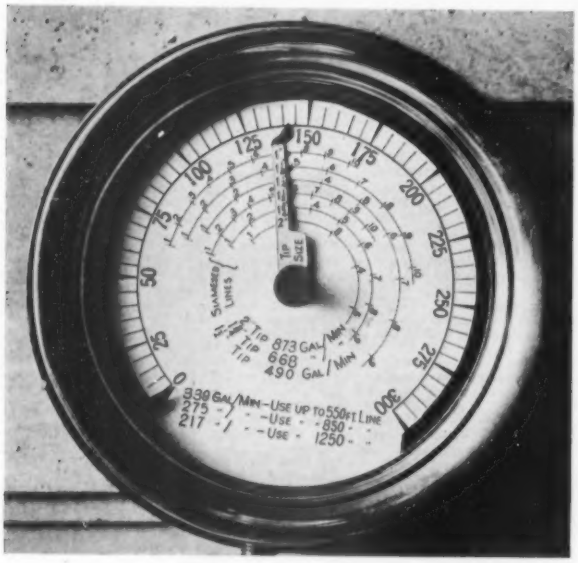
**A drill tower is being completed** in Abilene, Tex. J. Ray Roe has been appointed Drillmaster and has arranged a set of thirty drills. Classroom instruction will include hydraulics, chemistry, salvage and first aid.

**Firemen Carry Woman Down Ladder at Brooklyn Fire**

Smoke and flames in a Brooklyn, N. Y., three-story apartment house, cut off egress for the woman in the photograph. Firemen assisted her in making a successful exit by means of a ladder. The building was almost destroyed by flames.

## Calculator for Engine Pressure

A gauge with which it is easy to compute the pressure necessary at the pumper when the length of hose and size of nozzle are given, has been designed by Chief James E. Garwood, of Michigan City, Ind. Computations for the gauge were made from data in use at the Detroit Fire Department




Pressure Calculator

Training School. A number of fire prevention engineers who inspected this gauge believe that it will find a ready reception in Fire Department work.

The gauge is provided with a center knob which operates the pointer. As it is set in the photograph, it is to solve a problem where 500 feet of 2½-inch hose are used provided with a 1⅛-inch nozzle. The dial is standardized at 54 pounds nozzle pressure as being efficient for hose streams. By bringing the pressure hand parallel with the pointer, the gauge shows that a pressure of 142 pounds should be maintained at the engine. The gauge hand which now reads 0 is to record the pressure at which the pump is operating. The dial is illuminated so that readings may be obtained at night.

The gauge illustrated is for a 750-gallon pumper. Different combinations of nozzle tips may be provided for a special gauge face.

## Massachusetts Chiefs' Club Meets

The first fall meeting of the Fire Chiefs' Club of Massachusetts was held on October 18 with luncheon in the Parker House in Boston.

Chief Fred A. Clark, Attleboro, President, directed the proceedings. Chief William H. Hill, Belmont, was nominated by Chief Charles L. McCarthy, Worcester, for the position of Secretary-Treasurer, to fill the vacancy caused by the death of Ex-Chief F. Burt Jaquith, of Randolph, and was unanimously elected.

Chief David A. DeCourcy, Winchester, was presented with a Past President's badge, Supt. Peter E. Walsh, of the Boston Protective Department, officiating at the ceremony. Chief William J. Sands, of Quincy, was elected to the Auditing Committee.

Among the guests at the luncheon were Stephen C. Garrity, the new State Fire Marshal of Massachusetts; Mayor Foley, of Attleboro; C. C. Gane, editor of the Attleboro *Daily Sun;* and Roy Crandall, former Washington newspaper correspondent.

Robert Maney, of Brookline, was elected an honorary life member of the club upon a motion by Chief George L. Johnson, of Waltham.

Fire Marshal Garrity asked the aid and co-operation of the Chiefs. Among those who spoke briefly were Chief Selden R. Allen, Brookline, President of the International Association of Fire Chiefs; Chief Daniel B. Tierney, Arlington, President of the New England Association of Fire Chiefs; Chief William C. Mahoney, Peabody; Mayor Foley, Attleboro; Walter L. Wedger, former State Chemist; and Alfred N. Miner, Chairman of the State Fire Prevention Committee.

Mr. Wedger told of a new booklet issued by the U. S. Bureau of Standards on "Fire Hazards of Domestic Heating Installations." Mr. Crandall recalled some incidents of his newspaper days and told of attending a 4-alarm fire in zero weather when he was a reporter in Buffalo, N. Y.

A tribute was paid to Chief James M. Casey, Cambridge, who recently recovered from a serious operation and who was present at the meeting.

Chief Hill, Belmont, who has been Acting Secretary of the club since the death of Ex-Chief Jaquith, reported that the organization has at present 250 members consisting of 182 active members, 25 associate members, 32 honorary members, and 11 life members.

HARRY BELKNAP.

## Firemen Credited With Tammany Emblem

The tiger as the accepted emblem of Tammany Hall, at present the present ruling political organization in New York City, owes its origin to a fire company which existed in the historical days of "Boss" Tweed. The political cartoonist for *Harper's Weekly* selected the tiger, as it was the symbol of the Big Six fire company, of which "Boss" Tweed was Chief.

## Pennsylvania Firemen Hold Convention

The entire town of Lock Haven, Pa., turned out to welcome the fifty-fourth annual convention of the Pennsylvania State Firemen's Association convention held there October 3-5. About 1,500 firemen registered.

At a five-mile parade which climaxed the convention, thirty-one fire companies competed for the various prizes offered.

President Millard M. Tawney told of his work for the association during the year. Percy Bugbee of the National Fire Protection Association and Dr. A. R. Rauch, Lancaster, spoke on fire prevention topics. Capt. A. W. Shultz, Philadelphia Fire Department prepared a paper on oil and gas fires.

## Connecticut Chiefs' Plan Meets

The first meeting of the season of the Fire Chiefs' Plan of Fairfield County, Connecticut, was held at Fire Headquarters, Turn-of-River, Conn., on the evening of Wednesday, October 25. The members were welcomed by First Selectman Hanrahan, Second Selectman Geronomo and Third Selectman Joyce, of Turn-of-River. Other speakers were Chief Askew, of Turn-of-River, Fire Commissioner Michael Svihra and Chief Thomas F. Burns, Bridgeport.

President Veit said that it was very essential that all Chiefs send in at once a list of the equipment of their departments, so that each can know what to call for in case of need for assistance. This list would eventually be published in book form. Captain Dawkins, of Portchester, spoke of a similar publication which the Chiefs' Plan of Westchester County intends soon to issue. Chief Burns suggested that it would be a good plan for the Secretary to provide printed forms, which could be sent to all Chiefs to be filled out. This was placed in form of a motion and carried.

There was considerable discussion as to the proper authority to be asked for when calling for assistance from another department, and whether it was advisable to adopt a code word for use in this connection.

It was suggested that efforts be made to interest New Haven County in the formation of a Chiefs' Emergency Plan and steps were taken to do so.

On invitation of Assistant Chief George A. Brencher, of Darien, Conn., it was decided to hold the next meeting there.

A demonstration of flood lighting and a short address on the subject was given by Mr. Thompson, of the Homelight Corporation, Port Chester, N. Y.

At the close of the meeting a supper was served by the local department.

**Youngstown, Ohio, is planning** to erect a central fire and police station, if federal financial aid can be secured. The project is estimated to cost $350,000.

**A junior Fire Department** is being organized in Baker, Ore. The boys will meet in the fire house and will elect their own Chief and Fire Marshal.

# AUTOMATIC FIRE ALARM PROTECTS CENTURY OF PROGRESS EXPOSITION

**Number of Fires Reported by Private Protection System Before Alarm Was Turned in at the Manually Operated Fire Alarm Stations**

WHEN there is a big fire, that's news. But when there isn't a big fire, that's important.

It is important that there has not been one serious fire at the Century of Progress Exposition in Chicago. That is no accident. It is an achievement. The excellent fire record of the Fair shows what a combination of efficient fire alarm equipment and a well organized Fire Departmnt can accomplish.

On the other hand, what can happen at an exposition is exemplified by the disastrous fire that occurred at the Columbian Exposition in Chicago in 1893 in which twelve men lost their lives, and property damage amounted to more than a quarter of a million dollars.

It is not well known that the Century of Progress grounds are outside of the jurisdiction of the Chicago Fire Department. This land is state property. None of the municipal regulations of Chicago apply. There isn't a single municipal fire alarm station on the grounds.

## Exposition Has Separate Fire Department

The Exposition authorities provided a separate Fire Department located on the Exposition grounds, consisting of a 1,000-gallon per minute pumper and a 1,000-gallon quadruple combination ladder truck, chemical, hose wagon and pumper. It was arranged with the Chicago Fire Department to back up all calls of this private Fire Department with regular city fire-fighting equipment.

Fire protection of Exposition buildings is a special problem. Such buildings are of temporary construction and they quite naturally are liable to more fire hazards than permanent buildings having greater fire-resistive qualities. Hazards to both life and property are unusual because of the constant crowding. For these reasons, special precautions are essential to insure safety.

## Quick and Accurate Reporting of Fires

One of the most important requirements for fire prevention at the Century of Progress Exposition was provision for detecting and reporting fires with the greatest possible speed and accuracy. This was accomplished by installing an efficient system of manual and automatic fire alarms and watchman's compulsory tour systems, all supervised by a Central Station.

Most of the main buildings were provided with both watchman's compulsory tour systems and automatic fire alarms, all controlled through the LaSalle Street Central Station of the American District Telegraph Company. All alarms received from the fire alarm equipments are transmitted by direct wire to the Fair Fire Department, to the Chicago Fire Department, and to the Insurance Patrol.

## The Automatic Fire Alarm Service

An idea of the extent of the automatic fire alarm service may be had from the accompanying table showing the number of circuits, transmitters, gongs, annunciators, and quantity of tubing for each of the main buildings. For the benefit of readers who may not be familiar with the Aero Alarm, this system consists of circuits of copper tubing, about one-twelfth of an inch in diameter, attached to the ceilings of rooms to be protected. The tubing is connected at each end to a detector unit. This includes sensitive instruments that cause an alarm to be sent to the Central Station should the air pressure inside the tubing increase suddenly due to a rapid rise in temperature, as happens invariably in case of fire. The detectors are essentially electric switches actuated by the bulging out of a thin diaphragm, due to the increased pressure. A small hole or vent associated with the diaphragm compensates for normal pressure changes, such as those caused by heating systems or seasonal conditions, by allowing the air to pass slowly into or out of the tubing. However, should an actual fire occur, the temperature increases so rapidly that the pressure inside the tubing builds up beyond the compensating capacity of the vent. This causes the diaphragm to be bulged outward closing an electrical contact and initiating an alarm.

Each loop of copper tubing constitutes a circuit and controls the sending of fire alarms for a certain area. The location of each of these loops is indicated on an annunciator at the front of the building. In the Travel and Transport Building, for example, there are 37 circuits, the location of which are indicated on two annunciators at entrances to the building. In case of fire the members of the Fire Department consult this annunciator and are guided to the exact location of the fire. It will be noticed from the table that the automatic fire alarm equipment at the Fair not only sends in alarms to the Central Station but also actuates gongs at the site of the fire.

## Location of Fire Alarm Boxes

Fire alarm boxes for manual operation are located at convenient points throughout the grounds for the protection of buildings not equipped with the automatic system. Readers who visited the Fair will remember neat sign-boards, each consisting of a steel post with a number of "pointers" indicating the various buildings and features of the Exposition. On each of these signposts near a manual fire alarm station was a bright red pointer, lettered "FIRE ALARM" in particularly large white letters.

The first automatic alarm at the Fair was from the General Motors Building on June 9, when a spectroscope burst into flames. The automatic fire alarm detected the blaze and sent in its signal at 6:37. The Fair Fire Department was well on its way when a manual alarm was received at the Central Station at 6:40.

Again on June 19 the automatic fire alarm proved its worth. This time a fire broke out in the cab of a locomotive in the Travel and Transport exhibition. The alarm had been picked up by the Central Station, the gongs at the building were ringing and the Fire Department was on the way when an alarm was turned in from one of the manual stations.

At a fire that occurred in a concession booth in the Agricultural Building on June 22, the blaze was reported and extinguished so quickly that the only damage done was a slight scorching of the ceiling. In every case the fire was

**Two Views of the Century of Progress Fire Protection Features**

Upper, officer turning in an alarm by means of a manually operated box, and lower, one of the many signs in large letters directing the public to fire alarm box stations.

reported so quickly that it was extinguished without causing confusion or undue excitement.

**Aero Automatic Fire Alarm Service**

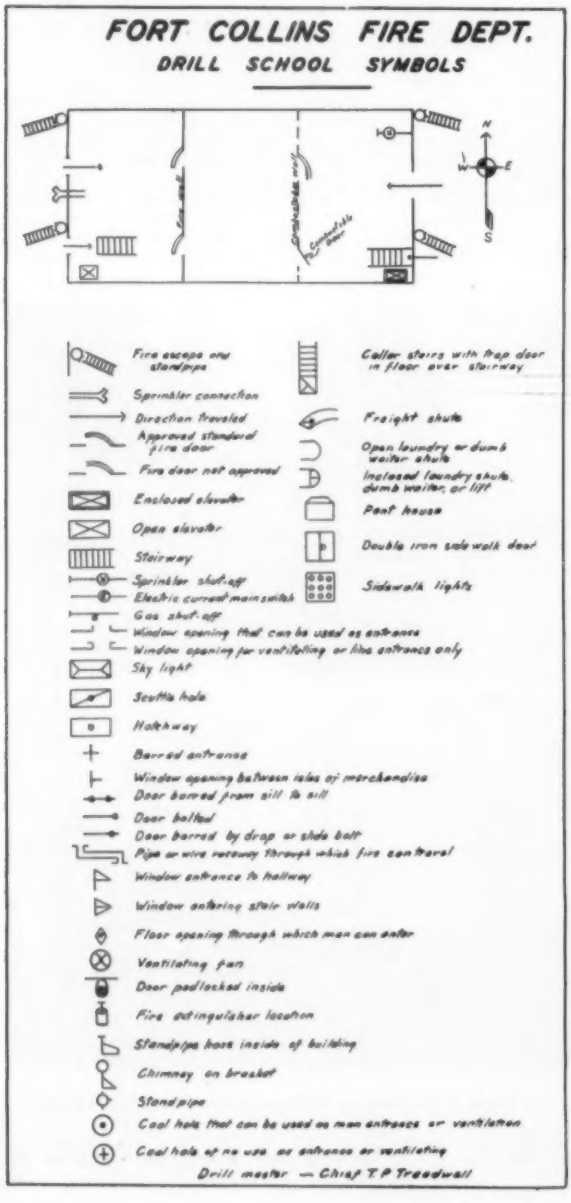
| Building | Circuits | Transmitters | Gongs | Annunciators | Tubing Feet |
|---|---|---|---|---|---|
| Travel and Transport... | 37 | 3 | 3 | 2 | 18,400 |
| General Motors ..... | 16 | 1 | 1 | 1 | 14,000 |
| Chrysler Motors ..... | 11 | 1 | 1 | 1 | 9,000 |
| Mayan Temple ..... | 5 | 1 | 1 | 1 | 2,800 |
| Home Planning ..... | 8 | 1 | 1 | 1 | 4,365 |
| General Exhibits ..... | 35 | 2 | 1 | 2 | 21,747 |
| Hall of Science..... | 45 | 3 | 1 | 1 | 30,800 |
| Science Buildings ..... | 2 | 1 | 1 | 0 | 600 |
| Lama Temple ..... | 1 | 1 | 0 | 0 | 600 |
| Sears Roebuck ..... | 9 | 1 | 1 | 1 | 6,035 |
| Electrical Building ..... | 34 | 2 | 2 | 2 | 26,320 |
| Federal Building ..... | 13 | 1 | 1 | 1 | 7,070 |
| States Building ..... | 27 | 2 | 2 | 2 | 18,515 |
| Agricultural Building .. | 18 | 1 | 1 | 1 | 13,030 |
| Dairy Building ..... | 6 | 1 | 1 | 1 | 3,000 |
| | 270 | 22 | 18 | 17 | 176,282 |

## Symbols Used to Mark Fire Hazards

Firemen fighting fires in Fort Collins, Col., are greatly assisted by a set of symbols which are used to indicate hazards in the building, easy means of ingress, and other information equally as important. These symbols are illustrated in the drawing.

There are symbols to indicate if the doors are barred or bolted. Firemen seeing the code marking on a panel of a rear door, know at once that by breaking out that particular panel, they will gain immediate access to the building without ruining the entire door. Symbols are also stenciled under windows. This saves raising a ladder to a window which cannot be entered or used advantageously.

The illustration also shows a map of a risk in the city, with the required information indicated by the standard symbols developed by Chief T. P. Treadwell.




## New Hampshire Chiefs Club Meets

The fall meeting of the New Hampshire Fire Chiefs' Club was held in Manchester on October 11 with luncheon in the Rice-Varick Hotel.

Prior to the meeting the Chiefs witnessed a Fire Prevention Week demonstration by the Manchester Fire Department under direction of Chief Charles H. French. Smoke bombs were lighted on the roof of City Hall and an alarm sounded from Box 6 at Elm and Markets Streets. Deputy Chief Arthur J. Provost turned in the alarm. After the first alarm appartus reached the scene, together with Fire Commissioners Arthur L. Prince and Eugene Quirin and Deputy Chief Edwin W. Merrill, head of the Fire Prevention Bureau, signals were tapped in for a second alarm response and then for a third alarm, bringing the entire department in review. Meanwhile most of the first alarm apparatus had been sent back to quarters. An extension ladder was raised against City Hall and firemen ascended carrying a hose line while motion pictures were taken. At a siren signal Fire Prevention Placards were raised on the different pieces of apparatus.

Chief Harry J. Monahan, of Berlin, N. H., President of the club, directed the meeting, assisted by Chief Albert C. Melendy, of Nashua, Secretary-Treasurer. There was an address of welcome by Mayor Damase Caron, of Manchester. Other speakers were Gilman A. McAllister, Chairman of the Fire Prevention Committee of the Manchester Chamber of Commerce; Franklin H. Wentworth, Managing Director of the National Fire Protection Association; and Charles "Sandy" Chapman, of the Gamewell Company, who sang "The Man with the Ladder and the Hose."

A demonstration was given of Air Line Masks. There was a round table discussion on the following topics: Advisability of having a State Fire Marshal in New Hampshire; the proposed tenure of office act for Chiefs; the hazard of celluloid heel covering work done in private homes; the powers of Boards of Selectmen in regard to police and fire ordinances; and the hazards of wood shingle roofs.

HARRY BELKNAP.

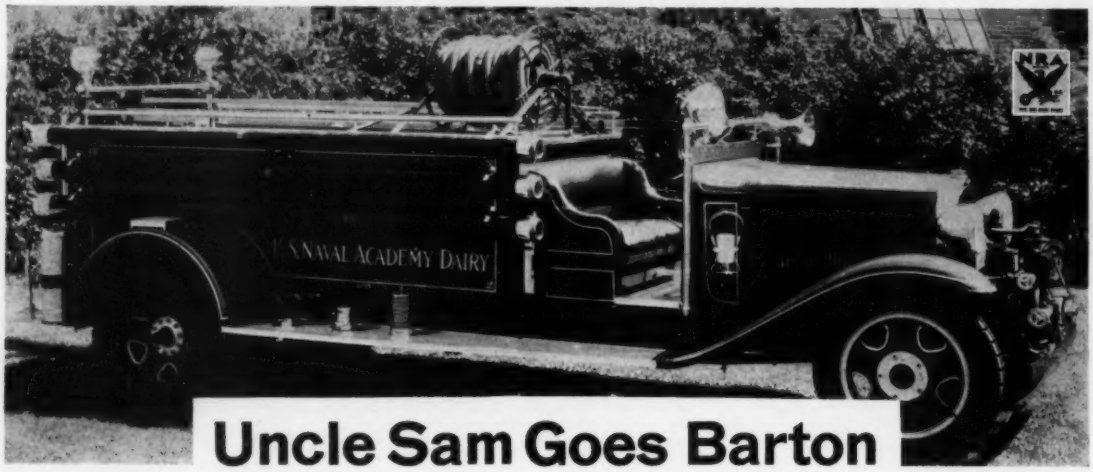
## Chief Ziegler, of Hackensack, Dismissed

Chief William Ziegler, for nineteen years head of the Hackensack, N. J., Fire Department, has been ousted from his post by an ordinance which merged the Police and Fire Departments under the leadership of the Chief of Police as Director of Public Safety. The Police Chief, serving as the new officer, receives a yearly increase in pay of $810, while the office of Fire Chief has been abolished. A new Fire Department has been organized along lines of the Police Department.

Counsel retained by the firemen intends to take the matter before the Supreme Court. The attorney pointed out that the act affects the tenure of office rights of every man in both departments, and that an unusual condition exists, for while the act abolished old department organization, it stipulated no new one.

This is not the first time that the city sought to take issue with Chief Ziegler. In March, 1932, he was suspended because a police captain complained that Chief Ziegler had permitted fresh water streams to be played on a pole carrying high tension lines. The complaint stated that the orders of the police captain to discontinue the lines were disobeyed, and a number of "sidewalk chiefs," who had their own ideas of how the fire should have been fought supported the charges. At later hearings, Chief Ziegler was exonerated and reinstated.

The new Director of Public Safety occupies the office formerly tenanted by Chief William Ziegler.




# Uncle Sam Goes Barton

ABOVE apparatus, equipped with Barton Centrifugal Fire Pump, front mounted, was purchased by the Government for the U. S. Naval Academy Dairy. If Barton Pumps are good enough for Uncle Sam, they certainly merit your investigation.

These Barton Underwriters' Tested Pumps are offered in 350, 400 and 500-gallon sizes. They are more simple; more efficient; longer-lived; handle clean or dirty water; offer easy accessibility to all parts. And finally, because of patented front mounting which eliminates need for special, expensive chassis, you can have a complete pumper at VERY LOW COST using a standard chassis. Write for Free Circular. AMERICAN STEAM PUMP COMPANY, Battle Creek, Mich.

**BARTON**
CENTRIFUGAL—FRONT MOUNTED
**FIRE PUMPS**

Caught in the act!

When sending an alarm with the SILENT SENTINEL, a bracelet is automatically released and attaches itself to the arm of the sender.

He is free to return to the scene of the fire if necessary, but if the sender will remain near the station from which the alarm is sent, it will aid the firemen, upon arrival, to locate the fire. All members of the Fire Department carry keys to remove bracelet.

# FALSE ALARMS *are Taking LIVES*— STOP THEM!

The needless waste incurred by false alarms can now be STOPPED. You can, wherever you are, attach to your present call boxes the

## SILENT SENTINEL

*Actually Identifies the Person Sending the Alarm*

Equip your new or present system with this new, positive-acting device that will once and for all eliminate false alarms in your town.

Chiefs who value the lives of their men as well as their own will want information on this new inexpensive device. No obligation in writing us.

**THE MARTIN-HAINES COMPANY, Inc.**
**Greenville, Ohio - Home Office**
DISTRICT OFFICE: SCRANTON, PA.

# SHATTER-PROOF GLASS IN OUR NEW FIREMEN'S MASKS

All drivers of fire apparatus will welcome this new face shield. It prevents wind tears, watery eyes and affords full protection against frozen noses and frost bitten cheeks and chins. Protects against stinging wind burns and flying insects. It covers and guards all the face without discomfort, just slip it on. Open mouth slit to breathe and talk through.

Made special only for W. S. Darley & Co. customers.

Nothing else like it that we know of, except aviation goggle masks that sell for $7.50, and well worth the price, for the workmanship and material. We designed these even better for fire department drivers, as follows:

Goggles are wide vision and pear shaped, very rigidly made with aluminum frame and with a spring hinged nose bridge. The lenses are clear SHATTER-PROOF glass. The inside is cushioned against the skin with silk and wool fur chenille. The body is 100% wool khaki government cloth. Eye cups are collapsible and ventilated so as not to fog. The headband is wide and adjustable. It is just the right idea, not only for drivers but for every man that has to ride an open fire truck in winter.

**No. C652.** Fire Dept. Face Shield, Each.... **$3.90**

**We are Always Ready to give you Service**
**Telegraph us Day or Night our Expense**

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**FEDERAL SIRENS**


STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF MARCH 3, 1933, of FIRE ENGINEERING, published monthly at New York, N. Y., for October 1, 1933.

State of New York } ss.:
County of New York }

Before me, a Notary Public in and for the state and county aforesaid, personally appeared I. H. Case, who, having been duly sworn according to law, deposes and says that he is the Business Manager of Fire Engineering and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption required by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are: Publisher, Case-Shepperd-Mann Publishing Corporation, 24 West 40th Street, New York City. Editor—Fred'k Shepperd, 24 West 40th Street, New York City. Managing Editor—Fred'k Shepperd, 24 West 40th Street, New York City. Business Manager—I. H. Case, 24 West 40th Street, New York City.

2. That the owner is: Case-Shepperd-Mann Publishing Corporation, 24 West 40th Street, New York City. I. H. Case, 24 West 40th Street, New York City. Frederick Shepperd, 24 West 40th Street, New York City. Karl M. Mann, 24 West 40th Street, New York City.

3. That the known bondholders, mortgagees, and other security holders, owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

I. H. CASE,
Business Manager.

Sworn to and subscribed before me this 29th day of September, 1933.

[SEAL] ELLEN E. DUNCANSON.

(My commission expires March 30, 1934.)

## Seyferlich Chicago Fire Commissioner

Arthur Seyferlich, formerly Chief Fire Marshal of Chicago, Ill., has been appointed Fire Commissioner to fill the vacancy caused by the death of the late Daniel J. Carmody.

Arthur R. Seyferlich

He had served on the force for thirty-seven years. In 1927 he resigned rather than submit to demotion to the rank of Division Marshal as a political move. Mr. Seyferlich entered the department in 1891 as a truckman. In 1922 he was appointed Chief Fire Marshal. He is sixty-four years old.

## Fire Show

Hundreds of spectators witnessed an impressive demonstration recently, which was also broadcast over radio station KGO, when the San Francisco Fire Department, under the direction of Chief Charles J. Brennan, presented a realistic third alarm fire simulating the actual happenings when an apartment house bursts into flames.

The demonstration officially opened Fire Prevention Week conducted under the auspices of the Fire Department and the San Francisco Junior Chamber of Commerce. The demonstration as heard over the radio was most realistic.

In fighting the stage fire, Chief Brennan utilized all the special apparatus of the department for forcing entry into buildings, fighting fumes and gases and other hazardous conditions. A number of thrilling rescues of occupants supposedly trapped in the building were also enacted.

C. W. Geiger.

## Newly Elected Chiefs

The following have been elected to head the Fire Departments in their respective municipalities:

Hope, N. D.—O. H. Amundson
Larkspur, Cal.—H. H. Geiser
Mondamin, Ia.—H. S. Young
New Hampton, Ia.—A. H. Wesp
Sabinal, Tex.—Birge Ware
Corning, Cal.—E. J. Poole
Page, Neb.—I. O. Wood.
Waterloo, N. Y.—William O'Malley
Van Buren, Ohio—M. R. Hess
Hannaford, N. D.—W. H. Richardson.
Turbotville, Pa.—H. D. Varr
Wisner, Neb.—A. L. Melcher
Presho, S. D.—R. R. Spears
West Manayunk, Pa.—William Fryer
Washington, Cal.—David Barry

## New Process of Hose Manufacture

By a process termed the Hydroseal, the B. F. Goodrich Rubber Company, Akron, Ohio, is making a wax and gum single jacket fire hose. Each cotton strand in the hose jacket is impregnated with the wax and gum mixture, and the mixture is prevented from reaching the rubber backing and tube of the hose. The manufacturer claims that the adhesion of the tube to the jacket is not affected. The preparation contains a fungicide chemical which it is said will combat mildew.

## N. Y. Department Holds Memorial Service

Five thousand persons watched as two thousand officers and men of the New York Fire Department paid tribute to the memory of dead comrades at exercises held at the Firemen's Monument, 100th Street and Riverside Drive. Since the last memorial service, thirty-four members died, of whom seven were killed in action.

Headed by a police escort, the Fire Department Band and ranking officers of the department, the men marched to the monument from the quarters of Hook and Ladder Company 22 at Ninety-seventh Street and Amsterdam Avenue. Chief John J. McElligott placed a wreath of yellow dahlias on the monument.

## Hoboken Wins Fire Prevention Cup

At a luncheon meeting which was well attended by representatives of various civic organizations, Chief John J. Gilday, of Hoboken, N. J., was presented with the Stetcher Cup, which is awarded for the best fire prevention record for the year in Hudson County. During the last ten years, the fire prevention work of Chief Gilday has succeeded in lowering the fire losses 67½ per cent. The speakers paid tribute to the good work of the Chief.

## Chief Ed Wynn Resumes Radio Work

Chief Ed Wynn, R. F. D. (Radio Fire Department, to you), who took time out from his four-alarm broadcasts last summer to burn up the movie lots of Hollywood, has responded again to Texaco's famous siren and bell.

Resuming the same fire chief radio role which within two years has gained him wider acclaim than thirty years on the stage, Wynn has rejoined Graham McNamee, his famous "straight man," Louis A. Witten and a musical aggregation —all of them now being heard every Tuesday night over a coast-to-coast NBC network.

The first indication that he would be back on the air came from the "fire chief" himself a short time in advance of his return to the microphone, when he sent this telegram to every fire chief in the country:

NEW YORK NY OCTOBER 19 1933
DEAR FRIEND AS A BROTHER CHIEF I MUST TIP YOU OFF TO THE GREATER FIRE CHIEF GASOLINE STOP WE USE IT AT OUR HOUSE AND IT IS SO POWERFUL THAT WHEN AUNTIE KNOCKS UNCLE JUMPS OUT THE WINDOW STOP STOP IN FACT I DRANK SOME OF IT AND IT IS SO POWERFUL MY BREATH STARTED A WINDMILL ON A DUTCH PICTURE IN OUR LIVING ROOM STOP STOP STOP IN CLOSING ALL I CAN SAY IS BY ALL MEANS USE IT TELL YOUR FRIENDS TO USE IT TELL STRANGERS TO USE IT TELL THE WHOLE WORLD TO USE IT STOP STOP STOP AS FOR ME I WILL STICK TO MY HORSE
SO O O O O O O O ED WYNN THE TEXACO FIRE CHIEF
P S DONT GO TO ANY FIRES ON TUESDAY NIGHTS BEGINNING OCTOBER 31st

Wynn holds many honorary titles, memberships, commissions and appointments, most of them represented by credentials of varying degrees of impressiveness in the three card cases that he always carries with him. Among them are the following:

Honorary Deputy Chief of the Boston Fire Department; honorary member of the Massachusetts State Police; honorary head of the State Police and special inspector in the Motor Vehicle Department of New Jersey; honorary delegate to the last convention of the American Federation of Labor; honorary chief of the Fire Department and special officer in the Police Department of Pittsburgh; honorary membership in the Detroit Police Department; honorary membership in both Fire and Police Departments in Cleveland; police officer in Cincinnati; special policeman in Wilkes-Barre, Pa., etc.

Chief Ed Wynn Listens to Graham McNamee

**A new fire station** is being completed in Ossining, N. Y.

**Houston, Tex., requested** the county to purchase fire apparatus as its share of having the Fire Department answer calls beyond the city limits.

## PROPOSED IMPROVEMENTS

**Holyoke, Mass.**—Reports state Fire Chief Patrick J. Hurley announced that at least $40,000 will have to be spent soon on new equipment for the fire department.

**Lowville, N. Y.**—Funds being raised for purchase of a squad car for the fire department.

**Nyack, N. Y.**—Movement under way to have new fire station erected.

**Fresno, Cal.**—City to apply for federal loan for construction of new fire station, extensions of present fire alarm system and fire hydrant system.

**Taft, Cal.**—Reports state Federal loan to be applied for to finance installation of fire alarm system.

**Waynesboro, Va.**—City to apply for federal loan to finance construction of central fire station.

**Mt. Vernon, Ind.**—Additional fire aparatus was recommended here.

**Concord, Cal.**—City to apply for federal loan to aid in financing construction of fire station. Estimated cost, $25,000.

## CONVENTION DATES

Nov. 15—FIRE CHIEFS' EMERGENCY PLAN, of Westchester County. Regular Meeting, Fire Headquarters, New Rochelle, N. Y., at 8 p. m. Secretary-Treasurer, Capt. E. Riviere, Fire Headquarters, Larchmont, N. Y.

Nov. 16—NEW JERSEY MUNICIPAL SIGNAL ASSOCIATION. Next meeting, Exempt Firemen's Hall, Bayonne, N. J.

Nov. 22—FIRE CHIEFS' EMERGENCY PLAN OF FAIRFIELD COUNTY. Next meeting, Darien, Conn. Secretary, John Moehring, Toms Road, Stamford, Conn.

May 9, 1934—DEL-MAR-VA VOLUNTEER FIREMEN'S ASSOCIATION. 5th Annual Convention, Lewes, Del. Secretary, Fred Brown, Minquadale, Del.

June 12-13, 1934—MINNESOTA STATE FIRE DEPARTMENT ASSOCIATION. 62nd Annual Convention, Hibbing, Minn. Secretary, Fred Pfaender, New Ulm, Minn.

June 20-22, 1934—MARYLAND STATE FIREMEN'S ASSOCIATION. 42nd Annual Convention, Cambridge, Md. Secretary, George R. Lindsay, Hagerstown, Md.

July 17-18, 1934—MARITIME FIRE CHIEFS' ASSOCIATION. 20th Annual Convention, Truro, N. S., Can. Secretary-Treasurer, K. J. MacRae, Capt. Salvage Corp, St. John, N. B.

## Department and Other Reports Received

**Shreveport, La.**—Annual report of the Shreveport, La., Fire Department covering the fire losses of the city.

**Albuquerque, N. M.**—Annual report of the Fire Department, Albuquerque, N. M., five typewritten pages.

**Elizabeth, N. J.**—Thirtieth report of the Board of Fire Commissioners, Elizabeth, N. J.; sixty pages and cover.

**New Bedford, Mass.**—Annual report of the Fire Department of New Bedford, Mass., twenty-four pages and cover.

**Toledo, Ohio**—Annual report of the activities of the Fire Chief of Toledo, Ohio, and the Chief Instructor of the drill school; typewritten.

**Kentucky Firemen's Association**—Fire Department Rules and Regulations issued by the Kentucky Firemen's Association; twenty-seven pages and cover.

**Delaware Volunteer Firemen's Association**—Report of the twelfth annual convention of the Delaware Volunteer Firemen's Association held in Wilmington; illustrated, thirty-two pages and cover.

**Iowa State College**—Bulletin 112 of the Iowa State College of Agriculture and Mechanic Arts on "Practical Salvage Suggestions for the Fire Department," containing data presented at annual short course; illustrated, thirty-eight pages.

## Chief Baldrick Dies of Blast Injuries

Thomas W. Baldrick, Chief of the Gardena, Cal., Fire Department, died in a hospital as the result of injuries and burns received while fighting a fire which destroyed a distributing plant of the Standard Oil Company. He had entered the plant to help free a freight car which had been thrown against an oil tank in switching. While trying to stop the flow of gasoline from the tank, an explosion occurred and he was thrown a distance of twenty-five feet.

Chief Baldrick was a member of the department since 1930. He was born in Brooklyn, N. Y., and had lived in Southern California for thirteen years. He is survived by his widow, a son, a daughter and his mother as well as a brother and sisters.

## Patents Issued for Smoke Ejector

Capt. Loyal C. Moore, of Sacramento, Cal., has been granted a seceond patent for fire-fighting apparatus to be used in freeing sections of a burning building from smoke. The first patent was granted on August 30, 1932, and the second on September 12, 1933.

Capt. Loyal C. Moore

The inventor claims that in addition to removing smoke from the basement of a building, the apparatus by creating a change in air currents, will prevent the hot gases from traveling up elevator shafts and stair openings, and it will thereby prevent the spread of fire to the upper parts of the building. The blaze will be drawn downward, away from the ceiling beams.

Back in 1918, Capt. Moore assembled an apparatus with a 12-inch fan, driven by a two-cylinder motorcycle. Smoke and gases were discharged through a 12-inch tube. It failed to meet expectations as the smoke was generated about twice as fast as it could be removed. Nothing further was done until 1929, and as a result of further work, the first patent was granted.

Captain Moore has been a member of the Sacramento Fire Department for thirty years. He served as Chief from July 1, 1920, to July 1, 1921.

## Denver Has Floodlighting Equipment

One of Denver's latest additions to its fire-fighting apparatus is floodlighting equipment on its rescue and salvage squad truck. Six powerful lighting projectors assure plenty of light even when power lines are broken by fire or accident. The projectors are supplied from a 3½-kilowatt direct-current generator operated directly from the engine of the truck.

Two of the six General Electric projectors are clear-lens projectors with 1,000-watt incandescent lamps, two have 40-degree spread-light clear lenses and use 1,000-watt lamps, and two, with 40-degree spread-light clear lenses and using 400-watt incandescent lamps, have handles. These last two are portable, easily removable, and furnished with 250 feet of cord so that they can be used at a distance from the truck.

The truck also carries shovels, axes, picks, sledge hammers, saws, sprinkler stops, smoke masks, gas masks, first aid kit, inhalators, salvage covers, pinch bars, acetylene burning torch, combination resuscitator and inhalator, full set of mechanic's tools, wrenches, ropes, chain blocks, bolt cutters, jacks, chemical fire extinguishers, electric fire guns, linemen's gloves, blankets, and stretcher. A great variety of emergency calls are included in the work of the squad.

## Study to Be Made of First Aid Work

As a result of a published accusation that first aid teams in Fire Departments have failed in their work of saving lives with the use of inhalators, a resolution was passed by the Illinois Firemen's Association that the Historian of the association obtain information as to the number of lives saved by this method during the last three years. This information will be published in year books.

Firemen in all classes of the association are being instructed in the use of inhalators, and they have been successful in saving lives.

**Graduation exercises** of the fourth class of the Harrisburg Fire School were held October 14 at the City Hall, Harrisburg, Pa.

**Leo Biedermann, Chief,** Pearl River, N. Y., for eight years, withdrew from that office at the annual dinner of the department due to orders from his physician. Chief Biedermann served in the New York Fire Department for twenty years, fourteen years of that time as aide to the Deputy Chief in charge of Bronx Borough.

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*(Signed) T. P. Treadwell,*
Chief of Department.

**Contents loss in his city dropped from $45,279 to $12,458 the first year they purchased Shuredry Salvage Covers. With efficient salvage drill and Shuredry Covers, Contents loss for 1932 was only $705 in Fort Collins.**

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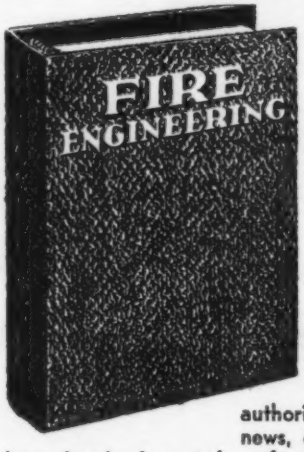


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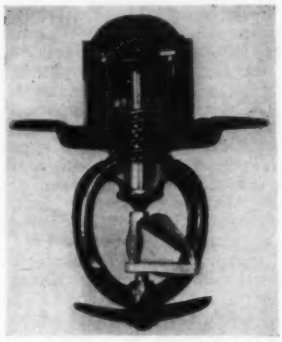
## New Fire Alarm Device

A device which resembles the appearance of a sprinkler, but which instead of releasing water operates a fire alarm in case of fire, has been developed by the Gamewell Company, Newton, Mass., and is being marketed under the name of Sprink-La-Stat.



Cross Section of Sprink-La-Stat

One type is for use with a master fire alarm box as part of a remote control or large industrial fire alarm system, and another type is for an automatic local alarm system.

The Sprink-La-Stat consists of a standard Rockwood solder type sprinkler head to which a circuit opener is attached. The melting of the head causes a pressure spring in the head to release a plunger and thus open the electrical circuit. The alarm is then sent in, in a manner similar to the operation of a manual remote control station. The design is simply an application of a sprinkler head to an electrical circuit opener. The heads are available in ratings from 140° F. to 360° F.

This type protection is considered adaptable for such places as libraries, museums and other places where water from a sprinkler system would cause considerable damage.

## Lieutenant Rank Abolished at Long Beach

Long Beach, Cal., has abolished the rank of Lieutenant in the Fire Department. Fourteen men holding that rank have been promoted to Captain.

The change predicates no increases in salary as Lieutenants have been receiving the same salary as Captains since the salary adjustment in 1926. Promotions were made from the Captain's eligible list created by examination held last fall.

The move is in line with what appears to be a well defined movement in Pacific Coast Fire Departments to eliminate civil service classifications wherever possible, in order to forestall the tendency of economy fanatics to abolish special classifications and discontinue special duty divisions in fire departments.

M. M. CLEMENT.

## Cumberland Firemen Elect Hollar

W. Carter Hollar, of Shippensburg, Pa., was elected President of the Cumberland County Volunteer Firemen's Association at a convention held at Newport. Thirty companies were represented at the business meeting. Other officers elected are Robert Deitch, Carlisle, First Vice-President; James W. Dougherty, Mechanicsburg, Second Vice-President; Jesse Stone, New Cumberland, Third Vice-President; David M. Givler, Carlisle, Secretary; A. S. Hertzler, Mechanicsburg, Treasurer.

## Municipal Electricians Hold Convention

The thirty-eighth annual convention of the International Association of Municipal Electricians was held at the Sterling Hotel, Wilkes-Barre, Pa., September 26-29. The following are a few papers of fire alarm interest that were presented:

"Care and Maintenance of Fire Alarm Systems," by Alfred C. Ames, Superintendent of Fire Alarm, Providence, R. I.

"What is New in Traffic Signals," by K. W. Mackall, Crouse-Hinds Company.

"Copperweld as Applied to Overhead Police and Fire Alarm Systems," by Stanton Hertz, Copperweld Steel Company.

"Philco UX Fire Alarm Battery Improvements," by R. M. Pease, Philadelphia Storage Battery Company.

"Two Problems in the Technique of Grounding," by Dr. M. G. Lloyd, Bureau of Standards.

"A. D. T. Protection Service, Century of Progress," by A. E. Smith, American District Telegraph Company.

"Modern Fire Alarm Equipment," by George A. Jackson, Gamewell Company.

"Teletype as Applied to Police and Fire Alarm Systems," by D. R. Day, Teletype Corporation.

The new officers are: President, William H. Greenlaw, Beverly, Mass.; First Vice-President, E. L. Layne, Denver, Col.; Second Vice-President, F. K. Shinnen, Atlantic City, N. J.; Third Vice-President, C. W. Baker, Birmingham, Ala.; Secretary W. H. Harth, Columbia, S. C.; Treasurer, C. S. Downs, Altoona, Pa.

## Idaho Firemen Elect Chief Card

The nineteenth annual convention of the Idaho State Firemen's Association was held in Caldwell, October 16-18.

Chief Marker, of Idaho Falls, spoke on, "Methods and What to Look for in Inspection Work." Superintendent John Walsh, Nampa, gave a talk on "Fire Prevention in the School," and it was discussed by Chief Lessinger, of Nampa. In the evening there was a round table discussion.

Chief Doyle Fender, Caldwell, spoke on, "The Handling of Volunteer and Call Men." O. M. Thurger, Seattle, talked on "Fire Prevention," and the subject was discussed by Chief Boyd, of Wallace. The subject of "Auxiliary Fire Prevention," was presented by R. G. Stevenson, Assistant Manager, Idaho Survey and Rating Bureau.

The new officers are: Chief E. Card, Preston, President; Chief S. O. Bounds, Lewiston, First Vice-President; Chief Fred Margetts, Rupert, Second Vice-President; Warren Compton, Boise, Secretary-Treasurer; Trustees, Chief R. L. Fisk, of Parma, Chief Julius Marker, of Idaho Falls and Chief Carl Smith, of Moscow. The next convention will be held in Rupert.

## Iowa Firemen Meet in Denison

Firemen from various parts of Iowa, assembled in Denison, Ia., September 19-20 for the fifty-sixth annual convention of the Iowa Firemen's Association. There were various contests, and a parade. C. A. Stephenson, Red Oak, was elected President; W. A. West, Boone, First Vice-President; Dolph Becker, Oelwein, Second Vice-President; Vincent Pyle, Chariton, Third Vice-President; Wright Hedges, Atlantic, Fourth Vice-President; Paul A. Soener, Independence, Secretary, and E. V. Lundquist, Des Moines, Treasurer. The next convention will be held at Creston.

## Electrical Dispatcher Device

Sixty per cent of the runs made by the Fire Department of White Bear Lake, Minn., are to points outside of the city limits. It is a volunteer department and it is impossible to designate in advance which men are to make a run. Following many alarms, the entire fire-fighting force would leave the city to make the run several miles from the limits, and no one was left in the city to answer a possible second alarm.

Two Views of the Electrical Dispatcher

At the left is shown the panel with the glass cover removed, to show the arrangement of the lamps, and at the right the complete device.

A dispatcher device has been designed by Chief Fred J. Campbell. It has ten sockets with lights, each controlled by a separate push button switch. The illuminated sign carries the names of two captains, two lieutenants, two engineers and three drivers. Pipemen and nozzlemen are not included. The first one of each of these ranks who reaches the fire house for an out-of-town run must push his button. This illuminates his name. He then proceeds to the fire, and if the apparatus has already left, he leaves in his own car. The next man of that rank who arrives sees that some other one of similar rank has responded. He is required to remain at the station to answer a possible second alarm. This device is only used for outside runs.

As all men are required to report to the station before going to the fire, there is some personal satisfaction in being the first one of his rank to report. A sufficient number of men are always on hand to operate the second unit, if needed.

## System for Drying Fire Hose

A system of drying fire hose has been developed by Chief F. Dubois of Kenora, Ont. A hose clamp releases the hose from hangers at the top of the tower so that it is not necessary to send a man up the tower to lower the hose. The hose is washed and cleaned before it is dried. All hose is

**Hose Section Being Taken From the Hanger With the Automatic Clamp**

hung up full length with the male ends up and it is lowered from the tower by a man on the ground floor. This system of hose drying has been endorsed by members of the local fire commission.

## Maine Chiefs Honor C. O. Spear, Jr.

At the annual meeting of the State of Maine Fire Chiefs' Association held in Hallowell on October 14, Chief Charles O. Spear, Jr., of South Portland, was elected President. Solomon Mercier, of Rumford, was chosen Vice-President, and Charles Bowker, of South Portland, was elected Secretary-Treasurer.

The session was held in the Central Fire Station. There were addresses of welcome by Mayor Campbell and Dr. Charles H. Bean, chairman of the Fire Department Committee of the city government. Other speakers were Chief Edward Hutchinson, of Boothbay Harbor; H. G. Gilson, of the Gilson Paper Company; Chief Eugene T. Ricker, of Biddeford, who spoke on "Handling Fires in Small Cities and Towns"; Chief Frank Lemar, of Gardiner, who discussed "Call Departments"; and Alfred N. Miner, of Boston, who spoke on "Arson."

There was a buffet luncheon served by the Hallowell Fire Department and in the afternoon the Chiefs visited the Veterans' Administration Home. In the evening there was a banquet at the Hotel Worster, followed by round table discussion.

HARRY BELKNAP.

## Westchester Chiefs Hold First Fall Meeting

The first meeting after the summer recess of the Fire Chiefs' Emergency Plan was held at Fire Headquarters, Briarcliff Manor, N. Y., on the evening of Wednesday, October 18, with a large attendance. President James N. Sullivan called upon Mayor Henry H. Law and Fire Commissioner Houghteling, who both cordially welcomed the visiting Chiefs. After routine committee reports, the Chair called upon Chief Chambers, of Yonkers, Chairman of the Educational Committee, who announced that the committee had prepared a series of subjects to be discussed at the various monthly meetings of the Plan. The first of these, which had been assigned to the November meeting, was to be Installation of Oil Burners. Others subjects chosen were Formation of Zones, Building Codes, Mechanical Refrigeration, the Use of Fire Foam, the Duties of Chiefs and Other Officers and Importance of Rescue and Salvage Patrols. This report was discussed by Chiefs Gibson, Chambers and Ex-Chief Mulcahey.

Captain Dawkins and Ex-Chief Mulcahey spoke on the matter of zoning and the matter was finally referred to Ex-Battalion Chief Woolley, Chairman of the Ways and Means Committee, who promised quick action on the matter.

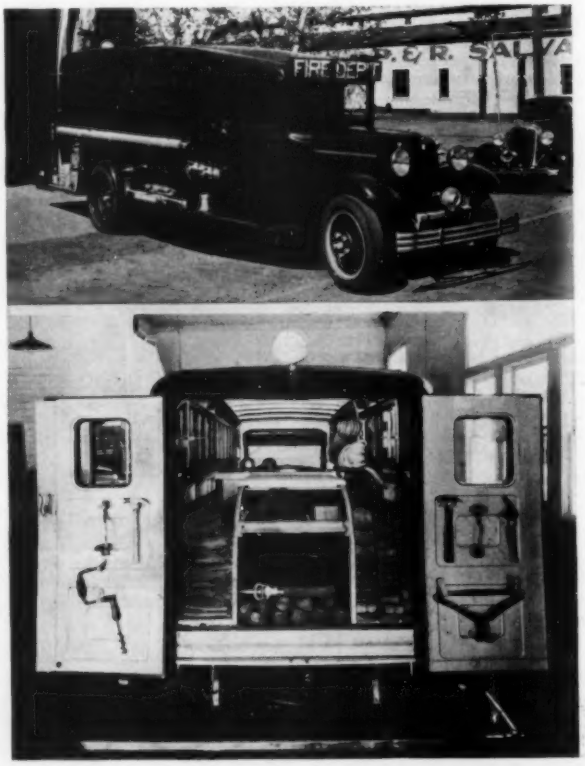
The speakers of the evening were Captain Paul Babcock, on the subject of the recently formed Volunteer Firemen's Section of the National Fire Protection Association; James A. Garrity, President, Chamber of Commerce, Yonkers, who spoke on the Relation of Fire Departments to Fire Insurance; and Charles Jones, Chairman of the Speakers' Committee of the NRA for Yonkers, who urged the Chiefs to take advantage of the grant by the government in building fire houses, and making other fire department improvements.

President Sullivan called upon Chief Wilbur R. Seaman, Hempstead, L. I., N. Y., President of the Fire Chiefs' Council of Nassau County, who expressed his pleasure and that of the delegation from his association, to be present, and offered his cooperation with the Plan. Other members of the delegation were Raymond Abrams, Vice-President, Lynbrook, who also spoke; William H. Thompson, Secretary, Lynbrook; W. Harry Lister, Treasurer, Rockville Center; George B. Trigg, East Rockaway; Everett Horner, Baldwin; B. J. Loonam, Freeport; and A. Joseph Klein, Freeport.

On invitation of Chief Oscar A. Grab, the Plan decided to hold the next meeting, which takes place on the evening of Wednesday, November 15, at Fire Headquarters, New Rochelle, N. Y.

## Protection for Apparatus Drivers

A face shield fitted with wide-vision shatter-proof glass goggles is being manufactured by the W. S. Darley & Co., Chicago. It is designed to prevent wind tears, frozen noses and frost-bitten cheeks. The goggles are made with an aluminum frame and with a spring hinged nose bridge. The inside is cushioned against the skin with silk and wool fur chenille.




**Squad Car of Stillwater, Okla., Fire Department**

A squad car has been placed in service in Stillwater, Okla. All the tools and appliances are enclosed to keep them protected from the elements. A Neon sign installed in front has been found of great value in obtaining right-of-way at night and it draws but a small amount of current. The apparatus has a 20-gallon Waterous pump. The body is mounted on a 1½-ton Ford chassis. It has a 300-gallon booster tank, twelve salvage covers, salvage equipment, two 24-foot extension ladders, forceable entry tools, hose and portable extinguishers.

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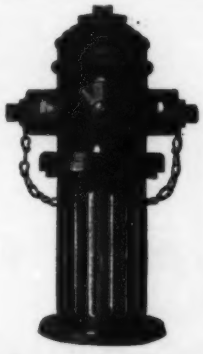

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# FALSE ALARMS

*Drawing by "Art" Espey*

**A cure for the fellow who becomes warmed-up to his subject.**

When an automobile stops by the roadside in the daylight, that's trouble. When it stops after dark, that's trouble, too—but of a different kind.

### CAUSE FOR DOUBT

A lady who was known as a chronic kicker had the misfortune to experience a small fire in her apartment. She called the Chief several times to complain about undue water damage in her home. He grew tired of her constant nagging. Once when she 'phoned the clerk answered:

"Are you sure the Chief is not in?" she asked.

"Would you doubt his own word, madam."

"I am sorry," said the dentist, "but you cannot have an appointment this afternoon. I have eighteen cavities to fill." And he picked up his golf bag and went out.

### LITTLE LOVE LOST

Even though the officers preached the doctrine of the spirit of the department, two members of one company never could find reason for mutual agreement. In fact when the two were near each other, an argument was sure to result.

At the end of a long period of bitter tongue-lashing, one said to his object of hate:

"The sooner I never see your face again, the better it will be for both of us when we meet."

If a fellow tries to kiss a woman and gets away with it he's a man; if he tries and doesn't get away with it he's a brute; if he doesn't try but would get away with it if he tried, he's a coward; but if he doesn't try and wouldn't have gotten away with it if he tried, he's wise.

### MORE STUDY

The boys believed that in return for a year's hard work fighting fires and leaving their homes at all hours, they were entitled to a little party. They got it. The committee in charge went a little beyond bounds. A smoker was arranged and the news leaked out. A few upholders of law and order were responsible for a raid, and a young lady, scantily clad, was hustled off to the court. The judge heard the case and peered at the defendant.

Snickers were heard as he said, "Young lady, I'l have to hold you for further examination."

And then there's the innocent little school girl who wouldn't study fractions because some of them were improper.

### NOT TRAINED

"And how is that new fellow making out driving the apparatus?"

"Oh, he's still kind of strange. When we get in a traffic jam he still grabs the wrong word sometimes."

Nowadays these stunt fliers aren't what they're cracked up to be.

### TOO GOOD

The periodic examination given by the department discovered faulty blood pressure in a member. He visited his family doctor and unburdened all his possible causes for the malady.

The physician remarked, "The best thing you can do is to give up cigarettes, liquor and women."

The patient thought for a while and asked, "What's the next best thing?"

The cost of living is slightly higher than it was a few months ago. This is because there is such a demand for it.

### MOST IMPORTANT

A candidate was having a most trying time with the examination paper. He had come not fully prepared. To the question, "Give five causes for explosive fires," he wrote the following unusual answer:

"Dynamite, combustible dust, gasoline, gasoline and some more gasoline."

*—Drawing by "Art" Espey*

**There's a Limit How Much to Believe a Sign**

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8 Alarm Systems, Municipal Telegraphic
9 Alarms, Thermostatic
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11 Badges, Insignias, Buttons, etc.
12 Banners, Trumpets, etc.
13 Battery Jars
14 Battery Zincs for Fire Alarm Batteries
15 Bells, Fire Alarm, Municipal
16 Body Equipments
17 Boxes, Gongs, Reels, Registers, Fire Alarm
18 Brakes, Air
19 Brake Linings
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23 Chains, Non-Skid, Fire Apparatus
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36 Extinguishers, Carbon Dioxide
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40 Extinguishers, Powder
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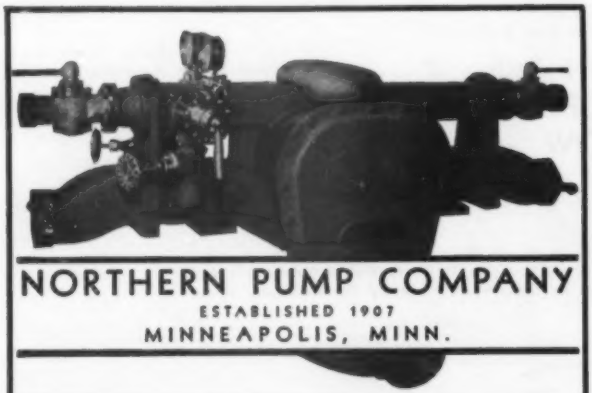

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